# A COLLECTION OF VOYAGES AND TRAVELS,

FROM

THE DISCOVERY OF AMERICA

TO THE

COMMENCEMENT OF THE NINETEENTH CENTURY.

IN TWENTY-EIGHT VOLUMES.

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# TRAVELS

THROUGH THE

# SOUTHERN PROVINCES

OF THE

# *RUSSIAN EMPIRE,*

In the Years 1793 and 1794.

## CHAP. I.

*Journey from St. Petersburg to Tzaritzin.*

SOLICITOUS to remove from the incessant bustle, as well as the artificial society, prevailing in the metropolis of Russia, Dr. Pallas applied, towards the end of the year 1792, to his late gracious sovereign the empress Catharine II. for permission to visit the southern province of her vast empire.

His request was granted, together with letters of recommendation to all the governors of those provinces in which he proposed to make any stay; and he engaged a skilful artist, Mr. C. G. H. Geissler, of Leipzig, who accompanied him on the whole journey.

He set out from Petersburg on the first of February, 1793, with his wife and daughter, to enjoy with them the first beauties of spring on the southern banks of the Volga.

The winter road through the forests beyond Novogorod was extremely good, but on the heights of Valda it became worse, and they found it extremely rough and dangerous as they approached the vicinity of Moscow; so that though the distance from St. Petersburg is only 728 versts, they were nearly ten days

on the road, an unusual length of [illegible]me for the expeditious mode of travelling in that country.

On the twenty-second they reached Novogorod, having observed an *Aurora Borealis*, which diffused a very brilliant light, extending north-west and more faintly north-east, with an intermediate space unillumined.

The antient *tumili*, or sepulchral hillocks, on the heights of Valda, arrest the attention of the traveller, particularly when the ground is covered with snow; those on the heights near the rivulets Cholova and Polomet, presenting with the tall trees growing on their tops, a fine picturesque winter landscape. These antient cemeteries, which is likewise the case in Siberia, are invariably placed in the most pleasant situations. It were much to be wished, in order to promote the knowledge of Russian antiquities, that these venerable monuments were carefully explored.

The strata of coal discovered in these regions since 1763, have not yet rendered the importation of British coal unnecessary, nor can this desirable object be hoped for without much deeper strata be found.

After the lapse of twenty years Dr. Pallas was highly gratified on observing the increased prosperity of Vyshnoy-Volotshok, which on account of the extensive inland navigation of Russia, is now one of the most important places connected with the metropolis.

*Tver*, the antient resident city of the grand dukes of Russia, is also so much improved that it may now be ranked among the most elegant and regular provincial towns in Europe. They enjoy here all the necessaries of life in great abundance, and at a moderate price. It is common for travellers passing through this place to be regaled with delicious fresh sterlets, caught in the river Volga, and at all seasons kept in reservoirs.

In *Torshok* they likewise found trade greatly increased. But this is so far unfavourable to the prosperity of the principal towns, as the mercantile ad-

vance of all the domestic and foreign articles of luxury, and the price of manual labour rising with the necessaries of life, are not in a due proportion to the income of the wealthy.

*Moscow* has, during the last twenty years, not only been greatly improved in the magnificence of its buildings, and in respect to refinement of manners, but the luxury of its inhabitants has also increased. The high price of the necessaries of life, and the profusion of foreign luxuries formed a striking contrast to its state at the above-mentioned period. The improvement in horticulture has been so rapid within these few last years, that vegetables are extremely cheap. Excellent asparagus is here raised in hot-beds in the midst of winter, in such plenty as to be sent to St. Petersburg, and several kinds of early fruit are not inferior in flavour to those produced in England. In summer the most delicious species of cherries, apricots, peaches, pears, apples, and even pine-apples are commonly sold at a reasonable price. It is to the late Prokop Akimfievitch Demidof counsellor of state, that these improvements are chiefly attributable. To him also the inland provinces of Russia are indebted for the introduction of several useful species of grain But alas! his example now no longer animates the spirit of the husbandman; his botanic garden which was described in 1782, is now desolate. Scarce a vestige of the rare and valuable collection of plants which he procured at a vast expence from England, and bequeathed to the university of Moscow, are now to be found in their proper place. Truffles have been lately discovered in the vicinity of the city, and are sold in a fresh state at a very moderate price throughout the summer.

Every object in Moscow, like the city itself, is of a gigantic size. Several palaces resemble castles, and are inhabited by hundreds of servants born in a state of vassalage. The foundling is one of the most extensive charities in the world. Some of them are finished

in the first style of architecture; but the institution most worthy of notice is the *new assembly house of the nobility*, which during winter is frequented by at least one thousand persons of rank of both sexes, who appear at balls and masquerades in the most superb dresses. The grand assembly hall is one of the most spacious rooms in Europe.

Being detained at Moscow till the 19th, they found the streets and roads almost impassable for their sledges till they reached the open fields, on account of the thaw which had begun to take place. They directed their journey by the way of Pensa, to Saratof.

On the 19th, they arrived at *Novaya Derevna*, whence without changing horses they proceeded to *Bunkovaya*, and on the following morning continued their journey.

In the town of Kirshatsh, as well as at *Bunkovaya*, they weave a great number of silk handkerchiefs, of various patterns, but of an inferior quality and size to those manufactured at Moscow, which are sold from one ruble* to a ruble and a half a-piece: the silk for this purpose is brought ready dyed from Moscow.

On the 21st they continued their journey to Valdimir, under a light fall of snow, and towards evening arrived at this antient grand ducal residence, which is now the seat of a provincial government. It is embellished with many modern houses built of stone; and several good dwellings of wood attract the eye of the traveller at a short distance from the town, especially on the heights beyond the river Kliasma. From the want of manufactures, this place is not, however, in a very flourishing state.

On the opposite bank of the Kliasma Dr. Pallas had the misfortune to fall as deep as his loins into a fissure concealed by drifts of snow, and there being no houses on the bank, he was forced to proceed in his wet

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* The real value of a ruble, by the course of exchange at St. Petersburg, varied in 1794 from 2s. 3¼d. to 2s. 8½d.

clothes to the end of the next stage of thirty-seven versts (about twenty-five miles English) to the county town of Sudogda. The effects of this accident did not appear, with respect to his health, till the following spring; but it laid the foundation, we are informed of a diseased and valetudinary life.

On the same day they reached the vicinity of Murom, and on the 23d passed within sight of that town, and proceeded as far as *Lomova*. The ice on the river Okka, over which they had to venture their lives for twelve versts to Lipna, was extremely unsafe.

Late on the evening of the 24th they arrived at Arsamas, after crossing the river Tesha. The soil, which had been sandy for several miles, changed to a rich black mould, extremely favourable to the cultivation of hemp. Innumerable bundles of this plant were spread out near the different villages, where during the winter it is dried in kilns.

The town of Arsamas appears to have increased in trade, but its buildings are not improved. The potash manufactures of this place, which our traveller formerly described, have several years ago been relinquished, on account of the insufficient profits they afforded to government; and the peasants have since been employed in attending to the imperial studs.

The country along the river Tesha becomes progressively more hilly, with an excellent black soil. Before they reached the village of *Netshoëva* they were obliged to repass this river, and travel over a fertile plain, varied with gentle elevations, and interspersed with handsome villages, till they reached Lukoyanof, formerly a village, but now enfranchised as a town, where they remained during the night of the 25th.

The next day they proceeded through a fertile and open country to *Tolskoi* and *Vasilef-Maidan*, villages where formerly much pot-ash was prepared, but which are now chiefly inhabited by fugitive subjects of the nobility. Here Dr. Pallas could not help feeling the

greatest indignation at observing every where the most unpardonable waste of the oak, the pride and wealth of the forest, which is cut down by the Russian boor for the most common purposes.

The government of *Pensa* is every where covered with beautiful forests of oak, and on the banks of the Atma they observed several young plantations of this valuable timber, belonging to the nobility, in a very flourishing condition, which is not the case in many other places, especially in the neighbourhood of the imperial domains, where the utmost neglect appears in this repect to prevail.

They changed horses in the small town of *Saransk*, about noon, on the 27th, which, notwithstanding some manufactures of soap and leather, does not appear to be in a thriving state. In this place, and most of the adjacent villages, the small Asiatic moth, *blatta Asiatica*, proves extremely troublesome. It is asserted that they every where destroy the great moth, *blatta Orientalis*. These insects are said to be fond of associating with crickets, and if both are put into a glass vessel and placed on the snow, even in mild weather, during sunshine, they become torpid, their bodies swell, and they seem to die instantly, but soon recover on being removed to a warmer atmosphere.

The birch and linden-tree delight in this soil, and flourish in great perfection: the lime-tree is conducive to the general culture of bees, and might serve as the most proper tree for groves along the road.

Agriculture is most shamefully neglected in the government of *Pensa;* and the boors, though possessing the most fertile country in the empire, live in the most wretched smoaky huts, and in the most disgusting state of uncleanliness; and their conduct towards the nobility, at the time of the rebellion of Pugatshef, bears evidence of their depravity.

Notwithstanding the numerous studs kept by the nobility, horses have advanced, during the last twenty years, to double their former price throughout Russia;

Both their horses and black cattle are under the middle size, while the sheep, on the contrary, are large. Their flesh is of an agreeable flavour, but the wool is of an inferior quality, and for the most part black; in February they commonly yearn two lambs. Every boor rears hogs for his domestic use, and during winter the pigs, lambs, and calves, live in the same apartment with the family.

All kinds of poultry are here of a large size, and in every village pigeons fly about in abundance.

The species of grain chiefly raised in the district of Pensa, both for home consumption and exportation, consist of rye, spelt, barley, oats, millet, and buckwheat. The mills are generally ill-constructed, and our travellers were supplied with the worst bread imaginable. Though the soil is excellent, wheat they were informed would not thrive in most districts: it is said to be productive only in the vicinity of some villages inhabited by Tartars, in the lower countries of the Usa. Hemp is also produced here in considerable abundance.

All grain is here stacked near the villages, beside upon threshing-floors till it is again separated and dried in corn-kilns to fit it for threshing in winter. The straw is all thrown away, except what is used for thatching and for the cattle. In the same manner the dung in all these rich countries is cast into pits and pools near the villages, and thus improvidently wasted; because their fallows improve in fertility the succeeding year without manure, and new arable land is in great abundance. The crops of hay yield here from fifty to seventy poods* from the desættine†, or two thousand four hundred square roods.

The city of Pensa, which is six hundred and sixty versts from Moscow, and one thousand three hundred and ninety-four from St. Petersburg, surprised our tra-

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* A pood is forty pounds weight.

† A desættine is two hundred and ten Rhenish feet broad, and five hundred and forty feet long, being 117,600 square feet.

vellers in a very agreeable manner. When Dr. Pallas visited this place in 1768, it was then only a market town, and he found it throughout built of wood, in a wretched and irregular manner, the churches excepted. But since the establishment of the provincial government, many noble families have been induced to settle here, and to build elegant mansions, disposed in regular streets.

This town, which is built on a height, and watered by the Soura, with its numerous churches and spires, has a very magnificent appearance: the inhabitants are partial to commerce, and the shops are as well stocked here as at Moscow, which is not the case in other places.

The little rivulet of Pensa, which supplies a part of the town with water, falls into the Soura. All the small kinds of fish found in the Volga are likewise caught here: neither lampreys, nor the large kind of sturgeons, are to be met with; but trout abounds in some branches of the Soura.

In the government of Pensa a great quantity of spirits are distilled from malt; and lately the landholders have begun to dig for pyrites; and, in some villages, manufactures of vitriol have been established. Mines of iron have also been discovered, and good mill-stones have been dug out of the quarries in different places. Pensa is situated on the left bank of the Soura, between the Pensa, which unites with Soura and two other rivulets Shelakhovka and Moika, partly at the foot and partly on the north-east side of an eminence near the junction of the Pensa Shelakhovka. This eminence is about fifteen fathoms above the bed of the first of these streams. The earth throughout the government of Pensa is uniformly covered with a layer of the richest black mould, about two feet deep.

On the northern side of the town, at the mouth of the Shelakhovka, a kind of new suburb is building, and here booths have been erected to accommodate those dealers who attend the weekly markets: the

town is already embellished with many elegant houses, some of which are built of brick. All the old houses, which are to be demolished, must be re-built of brick or wood, agreeable to a plan approved of by the empress. The best houses already erected are contiguous to the principal place, on which stands the cathedral and another church built of stone; the house of the governor opposite to it, but somewhat lower; two edifices are appropriated to judicial proceeding; the house of the vice-governor, situated still lower on the side of the hill; the residence of the commander in chief; a public school; and some dwelling-houses with shops. There are also a few very handsome private houses, adorned with beautiful gardens and hot-houses. Among the ecclesiastical buildings they observed a very antient monastery, with two churches of stone, and a nunnery, which has also two churches attached to it. The lower part of the town on the opposite bank of the Pensa, not being included in the new plan is to be gradually demolished. From the hilly nature of the ground, the streets are unsafe for carriages, and in some of them the wheels must be clogged to prevent accidents; but on account of its elevated situation Pensa enjoys a free and salubrious air.

A bridge over the river Soura leads to the Simbirsk road, through the mountainous and woody district of Troïtzk; and above the most antient lines of demarkation commences, which has been gradually raised against the encroachments of the Tartars. This line of defence, which consists of a wall defended by a ditch, is carried downward along the bank of the Soura to the mouth of the Issa, where it joins a similar and still more antient fortification.

Near the above-mentioned wall is situated a very extensive botanic garden, belonging to Mr. Paterson, the apothecary.

About four versts from Simbirsk begins the line of defence formed in the reign of the Tzar Alexis

Mikhailovitch, and which extends from the Soura to the Volga. This line is still in a state of tolerable repair, though all the fortified places connected with it have become open towns and villages.

Trade and manufactures begin to increase and flourish at Pensa: the tradespeople of every description have become more enterprising since the nobility have made this town their residence. Many foreigners have also settled here, which supply the inhabitants with every article of luxury and convenience.

The great number of persons of rank who reside in or visit this town, has induced them to institute a private club, consisting of one hundred members, who meet every Saturday, held in an assembly-room erected on the principal place of the town.

A considerable proportion of the people who inhabit this government, consists of Mordvines of the Mokshanic tribe; and, indeed, if we are to judge from the names of the rivers and brooks, which are mostly of Mordvinic derivation, the government of Pensa must have formerly been the principal settlement of that people.

On the sandy banks of the Soura the common white cabbage, *brassica oleracea*, grows in abundance. After crossing this river they entered a forest of the same name, and passed two other rivulets, the last of which is about twelve versts distant from Soura; night overtook them in the Mokshanic village Selkisa. The Mordvines, who inhabit this country, are successful in the management of bees, which are kept simply in the hollow trunks of trees, instead of hives, and with only a slight covering during winter. They likewise rear a great number of cattle, but their sheep are of so inferior a kind, that the wool appears to be mixed with goat's hair. The peasants employ themselves in making tar, as resinous trees abound in this country.

Beyond this village the ground is swampy, and intersected with rivulets, all of which flow into the Soura, but the country became more open and hilly as

they approached nearer to Youlok-Gorodishtshe, a market town, situated on the rivulet Youlok, where they arrived towards the close of day. This village is chiefly built on the left bank of the brook, and strongly fortified.

On the 22d of September they reached *Simbirsk;* the roads were so extremely bad that it was impossible to travel during the night, and scarcely in the day, though they had a double relay.

In their route our travellers passed through several villages, chiefly inhabited by Mkoshanians, on both banks of the Soura. The prospect is terminated by hillocks, which rise in the environs of the river, and the country abounds with forests of oak, pine, and linden-trees.

The heights are uniformly composed of a grey coloured argillaceous earth or flint, in horizontal strata, while the soil in the vallies consists of a black loam or potter's clay.

In those parts where numerous flocks of sheep are reared, the peasants dry a great quantity of linden sprigs with their foliage, which affords an agreeable fodder for lambs in winter. Indeed it would appear from the account of Dr. Pallas, that this tree is of very general use in the rural economy of Russia, both on account of its wood, of which all sorts of furniture and domestic utensals are made, and also its valuable inner rind, which is employed in the manufactory of masts and cords. Several spots in the midst of their forests have been industriously converted into meadows, though many noxious herbs continue to spring up in great abundance. The land in the immediate vicinity of the villages is generally used for tillage; and our travellers every where observed much hemp and grain, between the 16th and 22d of September, both standing and cut down, but buried beneath the snow, and in a damaged state, except what had been collected during fine weather. The fields, sown with winter-grain, presented a prospect

not less melancholy, from the ravages that had been committed on them by a species of caterpillar, *phalæna frumentalis*, which has within these few years infested the province of Kasan. The learned traveller recommends as the best preventative against these destructive insects, to overspread the fields plentifully with ashes, as soon as the corn begins to appear.

The vallies which divide these heights are intersected by numerous rivulets which flow into the Soura; and many villages are built along their banks. At the junction of the Barish with the Soura, a chain of hillocks commences, which are continued along the course of the Volga. The country is here more open, and the forests consist chiefly of birch trees. The heights present at different interstices, white slips entirely barren, formed of cretaceous marl, similar to that which is found in almost all the hillocks from Simbirsk to the Ousa. There is also discovered here, thin layers of feld-spath.

Among the plants which grow in the deserts near the banks of the Volga, the dwarf almond tree, *amygdalus nana*, is the most plentiful. Its fruit is called Babovnick, or Kalmuk walnuts. Some landed proprietors collect this fruit, and extract from it an oil which, though bitter, is very agreeable in sallads. Its taste somewhat resembles that of peach kernels, and a spiritous liquor is also distilled from it.

The whole population of the government of Pensa, according to the statement of our traveller, amounted in February 1793, to 136,282 immediate subjects of the crown, including 3794 Tartars; and 183,607 boors, or vassals of the nobility. In the district of Pensa alone, are 18,727 boors of the latter description, and only 1063 immediate vassals of the crown: in that of Insara, there are computed to be 20,264 of the former, and only 7209 of the latter class: nay, the district of Moksha contains but 478 vassals of the crown, while those of the nobility amount to

22,393. According to an accurate survey, there are 24,000 square roods of land to every male head in this province. From the peasants of the nobility, an annual tribute of twenty roubles is exacted; a sum not easily raised, hence these boors are sold at the price of 200 rubles each, together with the lands belonging to a village.

In this place the author takes occasion to urge the propriety, and necessity, of a proper forest-police, on the domains belonging to the crown, in order to prevent the improvident waste of oak fit for ship-building, as well as to enforce the necessity of cultivating new plantations of this useful timber.

In some parts of this province the linden-tree grows to a great height; and their honey owes its superior quality to the blossoms of this tree; the genuine linden honey is of a most delicious flavour.

Birch trees are likewise very common; the oil obtained from the white rind, is not only used in tanning the well known Russia leather, but is employed as a vermifuge balsam in the cure of wounds.

Wild fruit-trees are not indigenous here. The cherry shrub, *cerasus pumila*, grows only in the southern deserts, in the district of Kerensk, hence the escutcheon peculiar to it, is a couple of sprigs bearing cherries in a silver field.

Various kinds of wild berries abound here, among these the most common are bramble and raspberries, black-currants, cranberries, whortle-berries, and three species of strawberries. Few rare plants are found in this government. The most remarkable are the dwarf birch *betulaana*, the spurge olive *Daphne mezereum*, and the misletoe.

Fruit-trees do not thrive here, in general, in the open air, except the apple, and black cherry; the pear, plumb, and sweet cherry, require to be carefully covered in winter, as at Moscow, to preserve them from the rigour of winter.

The Soura, which originates in the mountainous re-

gions in the government of Saratof, becomes a little above the city of Pensa, a large navigable river, and frequently inundates the country to a considerable distance. Notwithstanding some slight obstructions to the navigation at low water, occasioned by the trunks and branches of trees, &c. which it bears along with it in its course, a large quantity of grain and timber fit for ship-building, are annually conveyed down the Soura. Besides this river there two others, the Moksha and Vorona, which facilitate the carriage of commodities from this fertile province to Moscow and Petersburg.

This ready communication by water, the low price of the super-abundant grain, and the stock of wood still preserved in some districts, have induced private individuals, as well as the government, to establish many extensive distilleries of corn spirits, several glass-houses, and also manufactories of soap, pot-ash, and leather. Rye would appear to be the grain chiefly employed in their distilleries, and this being one of the most fertile provinces in Russia, they distil in it annually from this and other wholesome grain, above two millions of gallons of proof spirit.

I was very much delighted, says Professor Pallas, to meet with several ingenious naturalists in Pensa, who had collected a variety of the curious natural productions of this country, particularly the college-counsellor Martynof, and Mr. Paterson the apothecary. Among others, the former of these gentlemen has in his cabinet a jaw-bone, several grinders, a calcined ivory tooth, and a rib of an elephant, which were found buried near the village of Levino, fifty versts from Pensa. He also exhibited to our travellers part of another tooth, which had been discovered in a brook that empties itself into the Soura. These and other vestiges of a former deluge, such as shell-fish in a state of high preservation, and the remains of different marine productions, are likewise found, it would appear, even on the heights of Pensa.

The government of Pensa, on account of its supe-

rior cultivation, contains but few wild animals; excepting those of the forest. The large otter, and the *lutreola*, or small otter, are said to abound in the Moksha and Soura. The latter of these live on lobsters, and when caught alive cannot be domesticated, but soon dies.

The musk-rat, *sorex moschatus*, inhabits the Soura and other brooks, but the large grey house rat is unknown in these regions.

A curious species, or mongrel variety of the domestic cat, attracted a large share of the author's attention. It was the offspring of a black cat, and had kittened three young ones, exactly resembling each other. Their mother lived alone in the village of Nikolwskoi, and often retired to a young forest, behind a garden which is laid out in the English style. It was remarked that this cat had absented herself during the rutting season; and it was also reported, that she had formerly had kittens of the common kind, which she devoured a few hours after their birth. He saw two of her brood in the house of Counsellor Martylof, and one in that of the Lord-lieutenant. The form and hair of this cat exhibit a very extraordinary appearance. She is of a middle size, has somewhat smaller legs than the common cat, and the head is longer towards the nose. The tail is thrice the length of the head. The colour of the body is a light chesnut brown, like that of the pole-cat, but blacker on the back, especially towards the tail, and paler along the sides and belly. The throat is whiter, and the female has a white spot on the lower part of the neck. A black streak runs along the nose, surrounds the eyes, and ends in a point on the forehead. The ears, paws, and tail are quite black. The hair, like that of the pole-cat, is softer than the hair of the common cat, and the lower or furry part is of a whitish grey. The hair of the tail is somewhat elastic, and lies flat in divisions. The exquisite olfactory sense, agility, and other characteristics of these three animals, are similar

to those of the common cat. But they had been extremely wild at first, hid themselves in cellars and holes, nay even burrowed under ground, and had not, at the time our travellers saw them, acquired the sociable qualities of our domestic cat.

With respect to the winged tribe, there are in the government of Pensa, a great number of heath and wood-cocks, many tame and wild ducks, and in winter innumerable flocks of small birds swarm about the stacks and thrashing-floors of the villages. The bird-catchers from Moscow catch many thousand green-finches, which they carry back to that city for sale.

The rivers of this government abound with fish, but except trout, there is none that deserves to be particularly noticed.

Except a few old fortifications, this province cannot boast of many remains of antiquity.

On the afternoon of the 9th of March our travellers left Pensa, with a grateful sense of the hospitality they had experienced in that town. The road at first led over a hilly country, but after a while they descended into a plain intersected by branches of the Pensa, and stopt at a village built on the banks of this brook. All the names of rivers &c. which lie beyond the line of defence already mentioned, are of Tartar derivation, and the term *Kondaly*, the name of a brook twenty-four versts from Pensa, signifies the water of the beavers, and affords a proof of the former existence of that curious animal in these regions.

From Kondaly our travellers proceeded to Klyuntshik, twenty-two versts, during the night, and again set forward early on the morning of the 10th, on their way to Tshunakino, seventy versts from the Soura.

During the whole of their journey through the government of Pensa, and as far as Saratof, they were accompanied by small flights of snow-hammers, which flew before the horses, and boldly alighted on the road. Their road now extended over elevated plains, clothed with birch-trees. After descending from

these elevations, and crossing the Krutetz, they had still twenty-one versts to travel, before reaching the small district town of Petrofsk, built by Peter the Great during the Persian war. The river Medveditza runs through this town, which has nothing to boast of but the regularity of its streets. In that quarter of the town, which occupies the southern bank of the river, they observed some remains of a curious wooden fortification.

On account of the deep snow, travelling was so extremely difficult, that they were compelled to stop during the night at Mokroi, a village about twenty-five versts distant from Petrofsk.

On the 11th they crossed the brook Mokraya, after descending a very steep precipice; on this occasion, they had the misfortune to have one of their carriages overset, but fortunately received no material injury. At a short distance from this village the country becomes extremely mountainous, and is intersected by deep glens, covered with linden and various other trees. Two versts farther brought them to the Mordvinic village Orkino, which is situated in a deep valley. The next stage brought them to Golitzyn, so termed after the prince of that name. It has a church, and is inhabited by about a hundred Russian families, and six hundred Malo-Russians. Their clay dwellings are more cleanly and convenient than those in most of the other villages, being furnished with chimneys, and having the walls white-washed both within and without. These villagers are good-natured, rather opulent, and possess numerous herds of cattle, of the Ukranian breed, as also flocks of Tsherkessian sheep, with long tails, excellent poultry, and spirited horses. The soil is rich, and generally consists of a vegetable stratum, not less than a fathom in thickness.

As our travellers approached towards the south, they observed a great number of vegetable productions, which do not thrive in the colder government of Pensa; such as the dwarf cherry-tree of the Vis-

tula, the hawthorn, &c. Two German colonies are established in this fertile province to the right of the Sokura, at a great distance from their countrymen on the banks of the Volga.

After passing the Sokura, and proceeding over a tract of high woodlands, the trees of which exhibited a singular appearance from their flexible branches being bent downwards with the weight of the icicles adhering to them, the road descended to the brook Lopshinovka, on the banks of which stand several small villages, and at a short distance farther, after a stage of twenty-one versts, our travellers reached the village Khlebnovka, situated on a little brook, which was completely cleared of ice. This brook receives from the neighbouring vallies several springs that never freeze, and it flows towards the Kurdyum, in a southern direction, through so warm a dale, that the snow was partly melted, and the frost had left the ground. This sudden change of temperature was distinctly perceivable by the mild breeze which came from the valley, on a day when the cold had before amounted to seven degrees of Reaumur. Wild ducks had already made their appearance in this place, but scarcely had they ascended the gently rising and lofty heights on the opposite side of the brook, which extends about fifteen versts to the stage Kurdyum, and eighteen towards Saratof, when they again found winter in its severest form. So much does the particular situation of countries contribute to the local varieties of climate.

Saratof, has of late greatly increased in population and trade, and is the only town in Russia, where the author found the necessaries of life at nearly the same moderate prices as they were in 1773. Indeed in all the places situated on the Volga, below Kasan, the city of Astrakhan excepted, the prices of provisions have not been considerably raised; because necessaries are there produced in the greatest abundance, and luxuries are not yet held in much estimation.

Several distant towns are partly supplied with grain from this neighbourhood, a supply to which the German colonies, which are rapidly increasing both in population and opulence, greatly contribute.

The winter, we are informed, is here regular and moderate, with heavy falls of snow; the weather of spring and autumn is generally wholesome and the summer delightful. The various degrees of heat and cold do not exceed twenty-seven degrees above and below the freezing point, and even those do not occur to such an extent every year. In such a temperature, all kinds of fruit thrive exceedingly well. Hence, the aulic counceller, Dr. Meyer, was induced to establish a nursery of several thousand fruit-trees, reared from the seed, on a farm called Khutor, about twenty-five versts from Saratof. These trees were ingrafted the following summer with sprigs brought from Hanover, and Professor Pallas had since the satisfaction to learn by letter, that they were in a very flourishing state. Having no doubt but that mulberry trees would also thrive in this situation, he suggests the propriety of distributing among the planters, concise printed directions, relative to the rearing of the silk-worm, and that the respective clergy ought to contribute towards introducing and recommending this profitable branch of domestic economy.

Our travellers were in hopes of hailing the approach of spring at Saratof; but, contrary to their expectations, found the ground covered with a deep snow, which had succeeded the mild weather of February, and the frost was of such intensity and continuance, that they were obliged to avail themselves of the usual winter road, and proceed in covered sledges.

After remaining two days at Saratof, on the 14th of March, they continued their journey down to Tzaritzin, on the icy pavement of the Volga, which was nearly a yard in thickness. This road is about forty versts in extent, is made for the most part on the mountainous right bank, partly on the

river itself, and partly on its branches. The first night our travellers slept at Sinenki, and on the 15th proceeded along the Volga, for seven versts, to the Germany colony of Sosnovka. Since the last thaw had rendered the ice on the river rather unsafe, the road had been made on a more solid bottom, through these colonies. These Germans are mostly of the Lutheran persuasion; they have built at their own expence a small church, and propose to appoint, conjointly with the congregation at Talovko, a common pastor selected from among the Moravian brethren; and it appears not improbable, that most of the German colonies on the banks of the Volga, will gradually embrace the principles of that sect. From this place to the colony of Talovka, situated on the banks of the shallow Karamysh, which after joining the Medveditza falls into the Don, the roads were nearly impassible, on account of the snow having drifted into the narrow tracks of the road. From this place they again proceeded in the direction of the Volga, which flows for upwards of three versts, under a steep bank, through a gradually declining valley.

In these and some other of the colonies on the Karamysh, the want of fuel had been severely felt previous to the year 1788, since which the inhabitants have learnt to make an artificial peat with dung and straw. This artificial turf has long been used by the Crim Tartars; it burns with a flame not unlike sea-coal, and imparts excellent heat, particularly to stoves and ovens for baking. Five or six pieces of it are sufficient to heat an oven, and a few men with several pair of horses or oxen, are able to prepare in the course of the week, sufficient fuel for the whole winter.

From Talovka, our travellers proceeded ten versts to the Russian village of Bobrovka, situated on a brook of the same name, and from thence, ten versts farther to the colony of Lyesnoi Karamysh. At a short distance from this place is the eastern source of

the Ilovla, called Rossoskhi, which flows near the colony, amid a beautiful dale, and afterwards unites in a deep dell, with the principal branch of the Ilovla, which almost in a line issues from an eminence in a north-west direction.

The colony of Rossoskhi, ten versts from the last stage, was originally a French settlement. The French colonists have however for the most part been permitted to emigrate to other provinces of Russia, and are now succeeded by the more industrious Germans, who were selected from different settlements.

From this place our travellers proceeded along the banks of the Ilovla, and after passing an Hussar colony, situated on the brook Yelshanka, arrived at the flourishing Roman Catholic colony of Kamenka, where they reposed during the night, having suffered much inconvenience the preceding day, from the intensity of the heat, occasioned by the reflection of the sun-beams from the snow, accompanied by a keen north-west wind, which continued during the whole of their journey from Saratof. The Volga is not more than fifteen versts distance from this place in a straight line.

On the 16th they arrived at the Catholic colony of Panovka, near to which is another called Ilovla, which like the former, is not in a thriving state. "It is indeed," says Professor Pallas, "remarkable, that here as well as in Germany, the Roman Catholic religion is attended with an unfavourable effect on the industry and prosperity of the inhabitants."

Ust-Gräsnukha, where they next arrived is the last colony on the road to Kamyshenka, and as the distance between these places is forty-five versts, the colonies situated in a lateral direction, are obliged to furnish travellers with horses on the intervening stage. But though notice had been sent to that effect, no relay appeared, and the horses being unable to proceed over a mountainous tract of country, towards Kamyshenka, Dr. Pallas resolved to visit Protopopovka, a mill and

country-house, belonging to the venerable lieutenant-colonel Pasor, by whom he and his companions were received with every mark of hospitality. This rural abode is situated on an eastern creek of the rivulet Ilovla, in a beautiful plain, surrounded with sloping hills, richly covered with wood. About half way on their stage, they passed a mill and a beautiful orchard, erected and planted by the old gentleman, and sold to one of the colonists. The incurvation of the Ilovla, on which the post-house is situated, is remarkable on account of the sepulchral hill which contains the remains of the unfortunate astronomer Lowitz, who, during the rebellion in Russia, was taken at Dobrinka, and dragged by a ferocious banditti to the head quarters of their chief, on the banks of this river, where in August 1774, he was impaled alive, and afterwards hanged.

On the 17th they proceeded with the new relay, which had arrived in the night, and after crossing the brook Kamyshenka, advanced to the town and fortress of that name, where they arrived about noon, and reposed the following night.

On the 18th they proceeded with a continued north-east wind, which enabled them to travel with great expedition along the ice of the Volga. This circumstance afforded Professor Pallas much pleasure, as it enabled him to examine the whole diameter of the high stratified hills, which extend along the intersected right bank of this river, down to Tzaritzin. This bank is formed of precipices, rising from five to ten fathoms above the level of the current; it has a sloping declivity towards the base, from ten to twenty fathoms in breadth, and from six to nine feet perpendicular height, overgrown with stunted white poplar and willow trees, and is entirely inundated by the streams at high water. The steep bank, almost in every direction, exhibits frequent breaches, and in several places channels of different sizes, which extend more or less into the land, and conduct springs,

rain, and snow water into the river. From the soft strata being washed away by the floods, these channels sink deeper every year. On the sloping edges of these brooks, and on the soil projecting over the bank of the river, there generally grows small elms, and other umbrageous species of trees, but the lower sides of the cliffs are overhung with black and white poplar trees and willows. The principal part of this stratified bank consists of a yellowish sand, in layers of different thickness, which are either in part, or entirely, petrified, in some places frangible, and in others intermixed with a great variety of muscle and other shells.

Our travellers were benighted at *Antipovka*, and on the 19th by day-break pursued their journey along the course of the Volga, which is diversified with two small islands. At Bolyklea the river appeared to be rather dangerous, on account of the large fissures in the ice, in which ducks had already made their appearance, which induced our travellers to attempt a new road over the heights of the country. But scarcely had they proceeded a verst, when the snow, which lay a yard deep, obliged them to desist, and night approaching, they were compelled to seek shelter in the wretched habitations of the new settlers at Proleika, and on the following morning they continued their journey on to the Volga, though not without danger.

After travelling a short space, the banks of the river exhibited broken layers of stone, till they approached Strelnoi Buyerak, near to which the stratum of sand-stone rises continually, and forms the Strelnye-Gory, or arrow mounts, which ascend from ten to fifteen fathoms above the Volga, exhibiting various figures, like busts on pedestals, which project in a row from the bank. A little below this, the high bank is intersected by a broad glen, which terminates three versts farther near the watery glen, on the border of which a village has lately been built.

A little below this village the strata of sand-stone again appear, and are partly formed by nature into curious divisions of rock, like brick-work, ornamented with a variety of vases.

Towards the broad mouth of the Olenia, or stag-brook, the lofty mounts of sandy-strata retire; and here our travellers were obliged to leave the right bank of the Volga, on account of a neck of land that runs into the river, and an extensive sand-bank, which was thinly covered with snow. Proceeding by a bushy island, they again approached the right bank of the river, near the mouth of the brook Peskovatka, where they once more met with sandy strata. Opposite this brook there is another island, on an elevated part of which the late Ataman, or captain of the Kozaks, M. Porsitzki, has planted an orchard in a romantic situation. The strata now begin to decline, with the current of the river; and from this neighbourhood issues a collateral branch of the Volga, called Voloshka, on which is built Pogrominskaya Sloboda. Farther down the river they reached Dubovka, formerly the principal seat of the Kozaks of the Volga. Since these Kozaks were transplanted, about sixteen years ago, to the line of the Caucasus, a new colony has been established here, amounting to nearly one thousand persons.

Below Dubovka, they passed several glens, in their way to Verchnaya Pitshuga, where a mill and a farm-house has been erected by the college-counsellor Rytshkof. Being again impeded by a large fissure in the ice, which forced them to cross and re-cross the river, they reached Varshina Vataga, twenty-five versts distant from Dubofka. Here they changed horses, and proceeded, on account of the increasing thaw, in the most expeditious manner possible towards Tzaritzin.

"We were entertained," says professor Pallas, "with the great diversity of objects we beheld during our winter journey to Tzaritzin, where we arrived

early in the afternoon on the 20th of March, in frosty weather. The earth was still covered with deep snow, and the ice on the river was solid. In former years, at this season, and in these southern regions, according to the natural vicissitudes of things, the summer fields were sown, cattle grazed on the fresh pastures, and the first plants of spring used to be in full bloom; the cold north-east winds, which succeeded those from the north-west, continued with serene weather through the whole month of March, and the night-frosts were so intense, that the meridian sun could scarcely soften the earth.

## CHAP. II.

*Remarks during excursions along the southern Volga.*

The first birds of passage had shewn themselves in February, but again disappeared. Wild fowls of different kinds, which usually fly in pairs, were now observed in the fissures of the ice; and the birds of prey hovering singly in search of their quarry. The snow-hammer and winter lark remained here till the second of April, before they emigrated to the northern regions.

At length, after a long and severe winter, two calm foggy days intervened with the new moon of April; the wind changed to the east, and brought on a premature thaw: thus in the beginning of April all the snow which lay on the eastern and southern sides of the heights suddenly dissolved; the waters rushed into the rivulets, and formed rapid torrents, which precipitated themselves into the Volga. The ice of this river now became very unsafe, being split in many places: the first swallows arrived on the fourth of April, and several other birds of passage were ob-

served either arriving hither, or withdrawing to the north.

On the 6th of April the streams of snow-water almost entirely ceased to flow; and the high lands began to dry; vernal flowers were seen sprouting forth in every direction, while the chafer and mountain-mouse awoke from their brumal slumber. On the seventh the ice of the Volga broke up compleatly; the thaw being accompanied with a warm rain. Vegetation now proceeded so rapidly, that on the eighth the low warm grounds and vallies were covered with flowers in full blossom. On the 9th a white crane, by the Russians termed *Starkh*, was shot on the opposite bank of the Volga.

After this sudden change of the season, professor Pallas began to prepare for his botanical excursion on the southern bank of the Volga; and his first journey was to the colony of the evangelical brethren at Sarepta, or Sarpa, where he staid till the 18th, and then slowly proceeded on his journey to Astrakhan.

Tzaritzin is, next to Astrakhan, the first inhabited, and most antient fortified place on the lower Volga.

It is situated close to the mouth of the small rivulet Tzaritza, on the right bank of the principal river, which a little farther up the stream forms an island called Deneshnoi, and on the left side sends forth a small collateral branch called the Akhtouba. To the right of the fortress, the Volga divides itself, and forms another island which has received the name of Sarpinskoi Ostrov, from its extending beyond the mouth of the Sarpa. This rivulet joins the main river upwards of fifteen versts below the island, which abounds with wood, and has excellent meadows; there are several houses built on it.

According to the old mode of building, the fortress consists of a high mound and bastions, without any outworks, and declines toward the steep bank of the Volga, which is strengthened by pallisades. It is

separated from the eminences that extend along this bank by a sp cious plain, which occupies the angle between the Volga and the Tzaritza; yet these heights command the whole fortress. The works were repaired by some Turkish prisoners, and the fort rebuilt and strengthened previous to 1774, which proved extremely fortunate, when lawless bands of boors and Kozaks infested this neighbourhood. Pugatshef, the leader of the rebels, attacked the town of Tzaritzin without success, and was obliged to relinquish the attempt.

The inner buildings of the fortress are indifferent, and in short, the whole town, and even one of the three churches, are built of wood. Except the newly erected booths little improvements, we are informed, have taken place in the buildings since the author's former visit to this place; but as in the summer of 1793 the greatest part of this town was laid in ashes, it will probably be rebuilt on a more elegant and regular plan.

The market-place is extensive, and contains a great number of shops. There are many wealthy merchants in this town, who carry on an itinerant trade, with the hordes of Kalmuks, during the summer, and besides derive great profits from the neighbouring fisheries. The lower class of the inhabitants maintain themselves by rearing cattle, by the cultivation of cucumbers, sugar, and water-melons, which almost spontaneously thrive in this climate, and by fisheries, as well as by their emoluments as carriers. But there is a great want of mechanics at Tzaritzin, from which the German colonies in the vicinity derive considerable advantage.

The number of Kozaks in the fortress consists of only one hundred men, who are merely employed as escorts for the post stations, and the line of Tzaritzin as it is called, is defended by the Kozaks of the Don.

The commandant of the fortress was formerly entrusted with the civil government of the burghers, and the district of the country which, however, is but thinly peopled. But in 1713 the high directorial se-

nate appointed in this place a court of chancery for the management of civil and economical affairs; an institution which promises to become more important on account of the increasing population.

Beyond the limits of the fortress, along the Volga, stands an irregular suburb, inhabited chiefly by Kozaks, but part of it was obliged to be demolished, when the rebels made the attack already mentioned.

The country round Tzaritzin abounds with every production of nature, and is far superior in this respect to the whole arid tract of land bordering on the river Volga. There are many extensive regions here which, notwithstanding the drought of this climate, would produce plenty of grain, on account of their internal humidity; but we learn that they are foolishly cultivated for no other purpose than that of rearing water-melons, which arrive at great perfection, in a soil that seems peculiarly favourable to the vine, as well as every other species of fruit, the culture of which requires a hot climate. In short, all kinds of vegetables might be raised in the gardens of this country, to an uncommon size and of the richest flavour, if properly attended to. Many plants grow wild here which are not to be found in the higher tracts of the Volga, nor in any other parts of Russia. The wild pear-tree thrives in the vicinity of Dubovka; the mulberry-tree flourishes, without any artificial aid, in the low wilderness near the Akhtouba, and in the dells along the Sarpa. Tamarisks, and the *Clematis Orientalis*, first appear as nature plants near to Tzaritzin, and wild plum-trees are common on the banks of the brook Manytsh and the river Kuma. Chervil, *scandix cerefolium* is found in the glens along the Sarpa, and dittany, *lepidium sativum*, grows wild on the higher nitrous soil near that rivulet, and in the vicinity of Sarepta. Professor Pallas having sown the *Phaseolus radiatus*, in an uncultivated melon-garden hard by this place, it flowered early, like all other Chinese plants which delight in a hot climate, and produced its seeds in the greatest perfection, in the

month of August; though Linnæus says, that this plant does not flower nor seed in Sweden, except in the most powerful hot-beds. The dwarf-almond, the plum-tree, and some other vegetables, frequently blossom, a second time in this country during autumn.

The heights, we are informed, afford excellent pasturage, while the islands and marshes, between the Volga and Akhtouba, produce abundant crops of hay. Sufficient fire-wood is also obtained from the low grounds, and timber is readily procured from the higher tracts, by the easy inland navigation. The soil is very favourable to the culture of mulberry-trees, which might be raised in extensive plantations: their leaves being valuable for the nutriment of the silk worm, by which means considerable quantities of silk might be produced.

By an accurate measurement, Professor Pallas ascertained that the ground on which the fortress of Tzaritzin stands, is one hundred and twenty-six English feet above the lowest water-mark of the Volga; and that the heights which extend hence along that river, form a still greater elevation.

The upper part of Glubokoi Buyerak, or the deep glen which intersects the first eminences above Tzaritzin, becomes annually deeper. Towards the base it first presents beautiful dark grey strata of fine clay; next to these a lighter grey lamellated fuller's earth, interspersed with irregular layers of sand, and above them variegated strata of sand and clay, intermixed with pebbles of various colours; but on the upper part, where the water has scooped out a cavity, in form of a bason, there is below the loam a stratum of the most beautiful, uniform, and delicate quartz-sand, of a milk-white colour, such as is held in the highest estimation by manufacturers of glass, and ornamental gardeners. These mingled and variously broken layers, in the opinion of Professor Pallas, sufficiently prove that the surface of the hilly country

consists of strata precipitated by the sea, and carried hither by the waters.

The following table shews the highest point of the inundations of the Volga during a series of years. From 1775 to 1779 this river exceeded the lowest water as follows:

| | Feet. | Inches. | | Feet. | Inches. |
|---|---|---|---|---|---|
| In 1775 | 39 | 2 | In 1784 | 27 | 4 |
| 1776 | 26 | 3 | 1785 | 25 | 2 |
| 1777 | 25 | 10 | 1786 | 28 | 10 |
| 1778 | 25 | 9 | 1787 | 27 | 6 |
| 1779 | 27 | 10 | 1788 | 30 | 10 |
| 1780 | 25 | 8½ | 1789 | 31 | 3 |
| 1781 | 26 | 6 | 1790 | 26 | 9 |
| 1782 | 26 | 0 | 1791 | 25 | 2 |
| 1783 | 27 | 1 | 1792 | 28 | 6 |

From the above table it appears, that since 1772, 1773, and 1774, when the Volga rose nearly forty feet, its waters have not since risen to that height. Professor Pallas hesitates, however, to decide whether the smaller quantity of snow and rain that had fallen in the higher countries, the greater evaporation of the Caspian Sea, or the progressive extension and cavities of the different mouths of the river have produced this deviation from its former rise. "Perhaps," he observes, "all these causes have co-operated to effect this change, and perhaps the highest swell of the river is, like the weather, subject to periodical variations."

Since our traveller formerly visited these regions, government have endeavoured to colonize the desert of Astrakhan, and several villages have been built on the banks of the Volga, others on the Sarpa, on the sources of the Sall, and along the borders of the river Kuma. These villages are mostly inhabited by Russians, except a few, in which Tartars, and people of other tribes, have settled such as could be collected from the south and east of Moscow.

Between Tzaritzin and Serepta our travellers passed a handsome village called Otrada, or *Recreation*, the summer residence of the lieutenant-general and senator Nikita Aphanassievitch Beketof, a very enlightened and active economist. On the post-road, close to the banks of the Volga, he has established a considerable colony of emigrants from Russia Minor.

The soil is sufficiently fertile on the declivity of the high lands in these regions; though intermediate saline spots occur, where the seed necessarily perishes. Senator Beketof has endeavoured by manure to fertilize such spots; but professor Pallas advised to make experiments with lime, or with an admixture of calcareous marle, which he conceived would probably decompose the neutral salts, and disengage the alkaline particles of the soil.

Otrada is the first place in Russia where white mustard has been cultivated on a large scale. After it has been decorticated in hand mills, the oil is expressed from it, and the mealy part which remains, employed like English mustard, to which it is by no means inferior, and is exported to foreign markets.

This crop, it is said, usually produces sixty-fold, and the oil and flower of mustard exceed the value of wheat in a similar proportion.

A mill built on the estate of *Otrada* is a very complicated piece of machinery; the lower Yelshanka at its decent from the high grounds, is dammed in for the purpose of supplying it with water; and this stream, after passing through the sluices, is employed for watering the fields and gardens.

Though Sarepta, soon after professor Pallas's former journey, had been plundered by the bands of Pugatchef, he yet found it much improved, and in a state of increasing prosperity. The market-place is regular, and adorned with elegant buildings, especially the church, and the comfortable habitations o the Moravians.

The number of useful inhabitants have been muc

increased, not only by new settlers, but also by natives. All the houses of this place are adapted for two families. The internal increase of the colony, it would however appear, has not been so considerable, probably owing to the late marriages enjoined among the Moravians. Many of the unmarried sisters, we are informed, are consigned to a sickly life, or an untimely grave; and other useful members of the community are carried off by difficult parturition, to which females married at an advanced age are generally subject. The inhabitants, nevertheless, enjoy a good state of health, since they have become accustomed to the climate; and they also appear, it should seem, to be perfectly satisfied with their lot. Every family has sufficient cattle, and small gardens along the Sarpa, which are made with much labour, by carrying soil thither from the surface of the high desert.

Several of these colonists have made a successful attempt to cultivate the vine: among others, the vineyard, belonging to the widow of the late Dr. Weir, that established by M. Nitsckmanor, an apothecary, retired from practice, and especially that of the president physician to the colony, doctor Seydel, a worthy and benevolent character, are all honourably mentioned by our author. This last gentleman has also formed an extensive garden and pleasure grounds on the right bank of the Sarpa; and he has also planted a considerable number of mulberry-trees with a view to introduce the rearing of silk-worms. The *Clœagnus latifolia* endures the cold of winter in his garden without any covering; it is much, however, to be regretted, that the friends of horticulture here are in want of a good species of cherry, plum, and other fruit-trees for engrafting their native stocks.

The best wine produced at Sarepta, and which is similar to champaign, is that of M. Nitschman, who takes uncommon pains in pressing the grapes, and fermenting the juice. With this view, he collects the white Hungarian grapes, plucking them from the

stalk, and keeping the first juice separate, the remainder he passes through the press, with the addition of water, and converts it into an acidulated drink or vinegar.

He has observed, we are told, that on account of the luxuriant growth of the deep-rooted old vines, their branches ought to be lopped so as to leave ten, twelve, or even fifteen eyes, because the lower buds are usually unproductive, while the upper ones have frequently three shoots from two to three fathoms in length, each of which bears two or three bunches of grapes. After a few years he cuts down the old vines, which are nearly a foot in circumference, and replaces them with rigorous two year old plants; and most of the cultivators in his neighbourhood would now appear to be convinced, that a good vintage can only be obtained by following his example.

The most remarkable manufactures carried on by the united brethren we are informed are the following: nine or ten looms for weaving handkerchiefs of a mixed texture of silk and linen; eight looms for manufacturing cotton stockings, and striped night-caps, which are in great demand for the women of the Kozaks. There is likewise here a small manufactory of Manchester goods, such as velveret and calico, which are made in great perfection, but cannot be sold so low as those imported from England. Without mentioning (says the author) the less important trades, as goldsmiths, watch-makers, book-binders, shoe-makers, tailors, and others, I shall only observe that the cotton yarn used in the above-mentioned manufactories is also dyed here, for which purpose a particular work, for dyeing Turkey red and Indigo blue, and a smaller work for dyeing the Manchester goods are established in this building. The Turkey red is here treated with oil; but the colour is inferior to that produced by the Armenians at Astrakhan.

Next to the house of the fraternity, there is a tan-yard, in which the thinner kinds of leather, and strong hides for soles are preserved; adjoining to this is the carpenter's yard, the baking-house, and at a small distance the slaughter-house, both built of stone. Close to these, the United Brethren were, during our traveller's stay here, employed in building a stone-kitchen, furnished with every convenience. The main building itself was enlarged by an additional wing, in the erection of which, however, the garden has been desolated and covered with rubbish.

In the house inhabited by the United Sisters, besides the usual female employment of sewing, washing, and other domestic occupations, handkerchiefs are now manufactured, and various articles of embroidery finished with uncommon skill and elegance. The garden, which the sisters cultivate without any assitance, affords a pattern of industry, cleanliness, and regularity.

The distillation of corn-spirits, and manufacture of candles, are important branches of trade carried on by the colony, and the latter is particularly profitable, as the candles of this place are sent to St. Petersburgh, and thence exported to distant countries.

The mill belonging to this colony has, in its present improved state, a sawing-mill, as well as an excellent flour-mill, of two lofts on one side for grinding wheat, and in the other side, two lofts for rye-meal, and a stamping mill for millet. Double wheels have been placed over each other, to connect the machinery with the upper wheel at high water, and thus keep the mill continually going. In the year 1783, the dam of this valuable mill was swept away by the extraordinary rise and pressure of the water of the Sarpa.

The brewery is at some distance from the colonial houses, on the banks of the Volga, and is a most profitable branch of business. The sale of beer is very considerable, on account of the numerous transports

which pass through this place to Astrakhan. In autumn 1792, before the ice on the Volga had acquired sufficient solidity to support loaded sledges, no less than sixteen thousand nine hundred of these vehicles, each drawn by one horse, passed through Savepta. The ingenious inhabitants of Sarepta, brew a kind of beer from their very abundant and cheap water-melons, with the addition of hops; they also prepare a conserve or marmalede, from this fruit, which is a good substitute for syrup or treacle. Perhaps a tolerable wine might be made of melons, by proper management.

The chemists of Sarepta have, the author informs us, for several years past, followed a process of purifying the common salt obtained from the lakes of this country, and by the natives called *Busun*. This highly purified salt is sold at a moderate price, and would be a profitable article of commerce.

A few years ago the *Mus decumanus*, or grey wall rat, came in numbers to Sarepta, and pursued their jonrney, after swimming over the mill-dam, in open day, towards Tzaritzin. The *Citillus*, or mountain mouse, multiplies daily, and is very pernicious to the crops produced by the industry of the husbandman.

The Italian and common poplar, as well as different species of the willow, flourish in this neighbourhood; and there is no doubt that, as they grow luxuriantly from shoots, these useful trees might easily be reared, even on the dry steppes, if they were properly watered in the first summer. In Tshernoyarsk our travellers remarked with pleasure, that the new planted trees were covered with slips of old bark, by which they were not only kept cool in hot weather, and their tender bark secured from cattle, but the circulation of the sap was more freely conducted to the uppermost eyes.

## CHAP. III.

### *Vernal Journey to Astrakhan.*

The first village below *Sarepta*, on the banks of the Volga, is *Lutshki*, the second *Tatianovka*, or *Svetloi Yar*, which signifies *the shining bank*. This last is situated twelve versts from Sarepta, and receives its name from the high naked bank, on which it is built. The desert which our travellers now traversed, produced great numbers of early white and yellow tulips, the *tulipa biflora* and *sylvestris*, which grew partly intermingled and partly in separate clusters. They proceeded farther along a steep bank, from which they had a view of the low country covered with multitudes of wild-fowl. In these regions the road is often made on the edge of a precipice formed by glens or banks, because this part of the height soonest becomes dry in spring. But as the frost of winter, and the subsequent rains of spring loosen pieces of these banks, scarcely a year elapses without dangerous accidents occurring to travellers, insomuch that sometimes men, horses, and waggons are precipitated with the falling bank down the steep.

About eighteen versts further the new village of Popovitzkaya, or Raigorodok, is situated at a small distance from the ancient post of Popoviska, and inhabited by the burghers of Tzaritzin, who formerly were scattered over this dry region. Our travellers left the Volga at this place, and passed over a dry heath, on which they observed many sepulchral hillocks. There, as well as on their journey westward, the mountain-mice notwithstanding their small size, have thrown up the earth in considerable heaps. After leaving this field of death, they again approached the Volga, and passed the Pestshanaya Balka, or sand pit, towards Yershova Vataga, and Nasonistshef Yar, where a storehouse of fish is established. The hip-bone of an elephant, and several ivory teeth have

lately been found here, on a precipice of the bank. A Kalmuck brought them an imperfect grinder which he had found in a glen of the heath. From this place to Yershova Vataga is reckoned seven versts, and about three versts farther there is a farm containing four houses for rearing cattle, on the manor of Naryshin. The major part of the nobility, or proprietors, who have divided the lands on the banks of the Volga, pay little regard to either population or tillage. They only endeavour to maintain their right of possession by inconsiderable establishments, in order to derive some advantage from the fisheries.

After travelling eleven versts, they passed the night of the 18th at *Solotnikofskoi*, or *Salnikova*, a village situated near Solotnikova Vataga, and which was formerly the only one in this neighbourhood. Above the village is Yablonnoi Buyerac, or the apple glen, the bottom of which, between the thickets, was covered with young chervil, which grew on a black mould. They had before observed this herb near Sarepta, in what is called the chervil glen. The sandy marl of the steep banks of Yablonnoi Buyerak, is interspersed with numerous indented muscles similar to those of the Caspian Sea, and which probably have been deposited by the Ocean. The large and steep Solanoi Buyerac, or salt glen, is about four versts below the village, and extends, with two of its dependent branches, a considerable way into the country. Every species of marine plants grow along the sides of this glen in abundance; but at the bottom the *Ulmus pumila*, which is of a considerable size, and the *Thlaspi arvense* and *Bursa* were the only plants in blossom, when our travellers visited the spot. They observed on its steep banks several layers of Fuller's earth, of an orange colour, above the sandy strata, and mingled with well-preserved shells, like those of the Caspian Sea. On the southern side they saw the *Tulipa biflora* and *silvestris* already fading, and the *Scolopendra morsitans* creep-

ing through the chinks of clay. Near this formidable glen, the criminal enterprize of the Rebel Pugatshef for the last time proved unsuccessful. He had taken a position contiguous to Vataga, and occupied the small redoubt which had been established for the post-station. But the well-directed attack of general De Michelson, and the fire of his cannon loaded with grape-shot, soon put the rebels to flight, and precipitated whole bodies of them into the glen, and down the banks of the Volga, where they were driven together and destroyed. Between the village and the glen, there are a great number of sepulchral hillocks which, as it appears, have been so amply filled with dead bodies, that their tops have sunk into the form of a bason.

The population of the village Solotnikova is two hundred persons, being all that remain of five hundred, who were formerly transplaced from the northern parts of the governments of Ustyug and Vologda to what is called the Kumanian road; but in consequence of the sterility of that region they were sent hither. The heat of the climate has destroyed a part of these settlers, but the survivors are now accustomed to it, they are in great arrears to the crown, from their idle and unsettled mode of life, and the obligation they are under to liquidate the taxes of their deceased relations.

The distance from Solotnikofskoi to the village Kamennoi Yar, or the stone bank, is about eighteen or twenty versts, and two versts farther there is a post-stage. On their approach within a verst of this village, they observed the ridge of a steppe, which formed some hillocks, extended obliquely from the West, and terminated on the high and steep bank of the Volga, called *Kamennoi Yar*. This ridge contains a grey-coloured slaty stratum, nearly similar to that of Kamyshenka, which is recommended by Lovitz for hygrometrical plates. No trace of this argillaceous earth is to be seen on the opposite bank of the

Volga; but, according to its direction, it appears to belong to the horizontal stratum which is found in the steppe on that side, under the names of Bogdo, Tshaptshatshi, and others. There is a cavern of no great importance in the stony bank of this place.

They saw only the early tulip, and the small *Ranunculus*, which perfectly resembles the *R. nivali*, in bloom on the steppe; and the same day met a large flight of curlews on their passage from the northern regions. In the afternoon, and part of the following night, they travelled the remaining sixty versts to Tshernoyarsk; and in all that extent of road did not meet with a single village.

We observed, says Professor Pallas, in the ditch of the fortress of this place, the *Ranunculus falcatus*, *Ornithogalum bulbosum* and *luteum*, *Sinapis rubella*, *Alyssum calycynum et minutum*, and *Taraxacum* in blossom. The earliest insects here are the *Papilio daplidice*, and different species of *Silphæ* and *Histeres*. They had before observed the *Phalargium araneodes*, or scorpion-spider, moving in the crevices of the clayey bank of the Volga; and several other insects on the steppe. In all dwelling houses, the *Musca vibrans* crept about in swarms upon the windows. The birds which they most commonly met with in the dry desert were kites, which flew in small flocks; a small kind of falcons, the red duck, bustards, crows, jackdaws, magpies, great and small larks, and starlings. The inhabitants of all the towns and villages of the Volga make cylinders of bark, which they place on poles in the farm-yards, to entice these birds to build their nests there. On the barren and dreary steppe of these environs, scarcely any plant is seen but the *Anthemis millefoliata*, and the *Achillea tomentosa*, between the two most common species of wormwood, *Artemisia maritima* and *Artemisia contra*. This last plant indicates the most barren soil impregnated with salt, a soil which produces only the flowers of the *Tulipa biflora*. The *Tulipa silvestris* bloomed on

the verdant and more fertile spots: this flower grows to a very large size where the soil is moist, and consists sometimes of eight or ten leaflets, and is sometimes double. The *Ornithogalum luteum*, on the contrary, is dwarfish throughout this steppe; and we only saw the first leaves of the *Verbascum Phœniceum*.

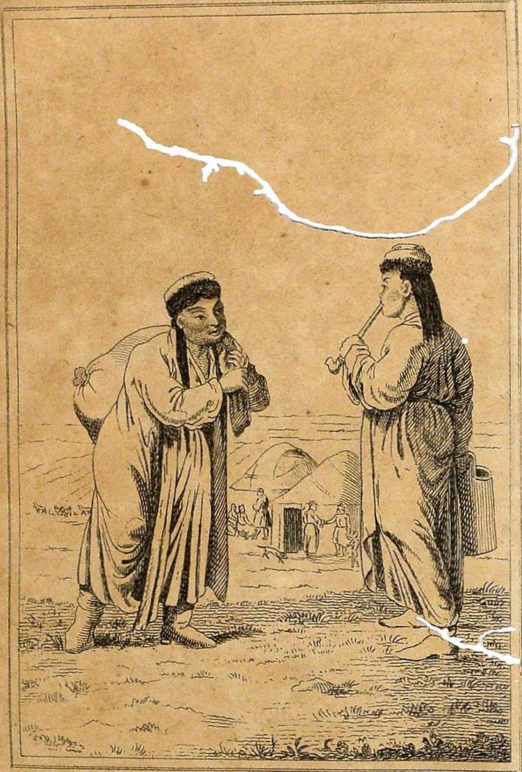
Tshernoyarsk is built in the form of a grand polygon, composed of five entire, and two half bastions. It is a place of some consequence, well built within the limits of the fort, has a good trade, and opulent inhabitants, the principal part of whom are employed in a very lucrative and extensive fishery.

The Volga is here of a considerable breadth, notwithstanding some sandy isles that rise from its bed, and a large stream called Volodimerovka, that branches from it towards the East. A high wind causes the waves of the Volga to beat upon the shore with such force, as reminded our travellers of the river Thames, below London: at high water the Volga is said to rise here to about thirty feet. Several bivalve shells of the Caspian Sea are found in great numbers on the high bank of this river. This bank principally consists of a sandy marl, and some small flat stones of a light yellow clay are seen here: they swim for some time on the water, and are about the size of a ruble or florin. Selenite is here found scattered in crystals, as well as in several other places on the bank of the Volga.

They continued their journey on the 21st. The beautiful low country *Solänikovo Saimistshe*, which lies beside the fortress, swarmed at this time with innumerable aquatic birds, such as geese and ducks of all kinds, cranes, herons, and kites, which fly in numerous flocks.

After having passed Kopanofskoi, the nearest town of the Kozaks, distant twenty-one versts, they again came to a clayey steppe, on which the *Tulipa Gesneri*, of a bright red and yellow, had begun to blow in great

A KALMUC PEASANT AND KALMUC PRIEST



KALMUC HOUSEWIFE AND GIRL.

abundance: its leaves were exactly similar to the early tulip commonly called *Duc van Toll.* The *Tulipa biflora* was already beginning to fade. The nights, however, still continued cold, and they saw fire on the steppe, at a considerable distance*.

On the 22d they proceeded towards Yenatævka. At a short distance from Kopanofskoi the steppe rises in hillocks, and is more of a sandy than clayey nature: but the sand under the surface is combined with clay. All the plants of this region are dwarfish, and have a withered appearance, as is commonly the case on a sandy soil. The *Ornithogalum bulbiferum* grew as abundantly in the vallies as if it were sown, and sometimes had seven or eight filaments, and as many anthers. The white tulip still presented itself, though only singly. The willows and poplars had begun to bud in the vallies. In those parts where the steppe begins to rise in hillocks, and in the glens on the bank of the Volga, several bones of the Elephant have been discovered. They obtained a jawbone pretty much petrified, and, as it were, coated with small gravel and muscles.

In the environs of Yenatævka, our travellers again met with Kalmuks, who are fond of passing the winter here in numerous hordes, but who in the present year had been infected by the small-pox, which

* The steppes are frequently fired, either by the negligence of travellers, or wilfully by the herdsmen, in order to forward the crops of grass; or, it may be, out of malice; as some years since the Kozaks of the Yaik did; when, having risen in rebellion, a small corps of Russian troops advancing against them, they saw themselves all at once almost entirely surrounded by the high grass on fire. Such a catastrophe often occasions great mischief; the flames spread themselves far and wide, put the dwellings of the inhabitants in imminent danger, consume the corn on the ground, and even seize on the forests. Many prohibitions, under severe penalties, have accordingly been issued against this practice, but they seldom have any effect. All the steppes may be considered as a sort of common land.—See Mr. Tooke's "View of the Russian Empire," vol. i. p. 84.

was epidemic along the Volga, and obliged them to disperse; this is a disease as dreadful and destructive to them as the plague. According to the latest lists which Dr. Pallas received, the remains of this remarkable people, who since the introduction of the provincial governments, and the division of lands, are confined to a more limited situation, still consists of eight thousand two hundred and twenty-nine *Kybitkes*, or family-tents.

"In my Collections for the elucidation of the History of the Mongole Tribes," says the learned traveller, "I have given such circumstantial details of their constitution, modes and vicissitudes of life, religious superstition, and idolatry, that any farther account would be superfluous. Frequent attempts have been made to induce them to form a settlement; but they are so much accustomed to uncontrolled and vagrant habits, that it was only from the extreme indigence of their fugitive brethren who have lately begun to emigrate to the province of Songary in the Chinese dominions, that their present rulers have been able to compel this unsteady people to apply themselves to agriculture and reside in settled habitations."

Beyond Yenatævka the steppe becomes more sandy as it decreases, and at unequal distances displays banks of moving sand, which become progressively more frequent. A quantity of decayed shells are every where found intermixed with this sand, and some Caspian muscles in a calcined state. The dry steppe is very hilly, though it does not rise more than two or three fathoms above the level of the Volga. The low country abounds with grass, is interspersed with willows, and as it were sown with tulips.

The *Iris pumila* appears here of two colours, being tinged with yellow and violet. Two beautiful species of *Astragalus* were now in bloom, on the sand-banks, in considerable numbers: they are frequently met with, though not so early in the season, through the whole extent of the Caspian steppe. The

species with the yellow flower has been improperly denominated by Linnæus, *Astragalus trogoides;* the other, which I have formerly confounded with *Astragalus depressus*, is not contained among the Linnæan genera; it bears flowers of a white or reddish colour.

As the continued wind from the sea caused the water of the Volga to swell so as to overflow part of the low ground, our travellers were obliged to pursue their journey over difficult and fatiguing sand-hills; in consequence of which they did not arrive till late in the evening at Samyangorodok, where they staid during the night.

The heights adjacent to this place are banks of sand drifted over a stratum of clay, and on which the plants called by Linnæus *Pallassia Caspica*, *Corispermum squarrosum*, *Hedysarum Alhagi*, *Spartium aphyllum*, and others which grow on sand, thrive in abundance. The first, as well as the *Axyris ceratoides*, and *Artemisia frutescens*, put forth young shoots. The roots of the *Pallassia* lay like tape above the sand, and were several fathoms in length.

Below Lebäshie, which is situated on the shore of the Volga, there are deep hillocks of quicksand, the bases of which rise but a little above the surface of the river. Between these they observed in different places a saline soil, covered with a white incrustation of salt, about one-eight of an inch thick.

These incrustations, first afforded by crystallization a beautiful Glauber's salt, with an alkaline basis; and the mother lye contained a digestive salt, super-saturated with alkali, which was not susceptible of a crystalline form.

On the 25th our travellers were ferried over the Solänka, as its bridge had been carried away by the flood; and thence proceeded in a boat on the Volga to Astrakhan.

Intending to return to this city in the month of August, M. Pallas now hastened with Mr. Geissler to the steppe beyond the Volga, that he might obtain

exact drawings of the rare vernal plants he might observe during a journey peculiarly devoted to botany, and in which two young gentlemen, Mr. Dokushaëf, teacher of Natural History in the Normal Academy at Astrakhan, and the student of pharmacy, Mr. Swenson, both eager of instruction, voluntarily accompanied him.

Their stay at Astrakhan was protracted by various circumstances till the 5th of May. During that time Dr. Pallas collected beautiful vernal plants, had drawings made of them, and prosecuted various useful inquiries. This day at noon he dispatched his light equipage by water, and went himself in a small boat, at three o'clock, up the Volga, with a fair south-east wind. He passed the convent of Bolda on the little river of that name, which forms an isle near its source; and continued his route in sight of the Kasatshei Bugor.

Behind Astrakhan our travellers passed the convent of Pokrofska, and proceeded with a fair wind up the Bolda. On leaving Tsherpakha, sometimes with the assistance of oars, and sometimes with sails, they steered the greatest part of the time towards the S. E. and E. S. E. through what are called the *Busurmanka*. These are canals, in some parts covered with rushes, and in others confined within dry banks: they conducted them into the Rytsha, thence into the Kortubinskoi Ilmen, and at length into the Busan. Having crossed this prodigious and extensive branch of the Volga, which the rising water had increased, they steered in a direct line to the city of *Krasnoi Yar*, where they landed at eleven o'clock at night.

On the 6th of May it rained so hard, and the weather was so tempestuous, that they found it impossible to continue their voyage and reach the opposite steppe. A short interval of fair weather permitted them, with difficulty, to visit the environs of the city, and inspect the salt petre beds, as well as the lixiviated nitrous hills, which run in an eastern direction, and are

adorned on both sides by the most beautiful orchards. This nitrous field appears to have been a cemetery of the ancient Tartars; an opinion which is corroborated by numerous fragments of bones, and whole human skulls, mingled in every direction on this soil. *Sumerkent*, the antique Tartar town, which Rubruquis, or Ruysbroek, the monk, in his forty-ninth chapter states to have been situated in an island at one of the mouths of the Volga, appears to have stood in the environs of modern Krasnoi Yar; for soon after we find Astrakhan mentioned under the name of Citrakan, in the low country of the Volga.—Not only in the environs of Krasnoi Yar, but also on the two isles Kobylie and Vatashnoi Bugor, situated in its vicinity, on the uninhabited places called Krasnoi Yari, or red banks, near Altsha, on Karaulnoi, Kirpishnoi, and Mayashnoi Bugor, traces of stone buildings are frequently discovered; and large bricks are often dug up, of which the boors build their stoves. The whole Mayashnoi Bugor, which is separated from Krasnoi Yar, by the Ogorodnoi Yerik, or, garden ditch, and from Kirpishnoi Bugor, or, brick isle, by Kirpishnoi Yerik, or, brick ditch, is appropriated either to gardens or a cemetery, and is full of ancient Tartarian tombs. Other dry isles adjacent, such as Bugri Danilovye, Kobluiskoi, Tshertofskoi, Parshikofskoi, Kandakofskoi, and Kobylinskoi, though they have no remains of brick buildings, yet vestiges of a former population are every where visible.

The nitrous earth of this country is a reddish sandy marl, or sand mixed with clay, and interspersed with pieces of bone. It would be necessary to mix dung or urine with it, in great quantities, to prepare a good compost for the production of saltpetre, in walls or beds which might afford a sufficient supply for a small saltpetre work. When M. Pallas visited them, there was but a very slight efflorescence on the lixiviated earth.—The only plants which thrive on these nitrous beds, he informs us are the *Ceratocarpus*, *Ranuncu-*

*lus falcatus*, *Lepidium ruderale* and *perfoliatum*, *Scorzonera laciniata*, *Hyosciamus niger*, *Secale prostratum* and *villosum*, *Sisymbrium*, *Loeselia*, and *Sophia*, *Asperugo procumbens*, *Lycopsis vesicaria* and *Cynoglossum*. Various species of *Salsolæ*, *Polycrema*, *Atriplices*, and the numerous *Messerchmidia*, put forth their buds.

Krasnoi Yar is built on the bank of the Busan, in an island formed by the confluence of that river with the Akhtouba and the Algara, another branch of the Volga. It is intersected by several small canals; for instance, those of Mayashnoi and Ogorodnoi Yerik. Part of this isle is inundated at high water; and then the streets of even the higher parts of the town are overflowed. At such times travellers can proceed in boats directly to Astrakhan; and by this way the distance is only thirty versts, and sometimes even less. On the contrary, when the waters are low, and especially when the wind blows towards the sea, and propels them outwards, travellers are obliged to make a considerable circuit up the Akhtouba, by which the voyage is protracted to seventy versts. It is the same in winter, when the ice is broken by the sea-winds, and thrown up on the other side of the isles: besides these inconveniences, a similar circumstance happens when the water from the sea inundates them, and thus renders the direct road impassable.

This city is of an oblong form, and intersected by a principal street: it contains about three hundred houses, a stone church, sufficiently large for the population of the place, and one of wood. The garrison consists of one hundred infantry, whose commander ranks as a staff officer, and one hundred Kozaks. The inhabitants are either merchants or fishermen: consequently there is a great want of mechanics. The wooden fortifications of this place are totally decayed, except two turrets; and the means of defence at present consist of chevaux-de-frise and two open batteries. The gardens of the inhabitants are parti-

cularly celebrated for delicious autumnal pears, called *Duli*, and for their apples, among which are a remarkably large species, and another which they call *Mamutofskys yabloki*, or the Boukharian sort. The gardens likewise produce a very large species of white onion, which is much esteemed. These fruits and fish, are the only traffic of the inhabitants, who convey them in boats to the market of Astrakhan, where they are advantageously sold, so as to produce annually from six to eight thousand rubles.

On the 7th of May the weather was fine, with a mild and constant breeze from the south-west. On the morning of that day our party sailed a small way up the Busan, and entered the Akhtouba, which flows into it; after which they proceeded up that river, and passed the mouth of the Algara to Krasennaya Prorva, a narrow canal, the dry banks of which were covered with beautiful willows and poplars. From this place they continued their course to the vast lake of Tshernoi Ilmeen, which extends farther than the eye can reach, though its depth in no part exceeds three ells. They sailed over this lake principally N. E. and E. till they entered the Karduvanka, and thence passed into the Kigatsh, which flows along the more elevated opposite steppe, and forms the easterly arm of the Volga. On landing near Studentzova Vataga, a rendezvous of fishermen on an isle of the Kigatsh, they found the horses ordered for them, and an escort of Kozaks appointed to conduct them to the steppe, near the advanced post of Kapitanskoi, a place belonging to the cordon lately established.

This military cordon has been organized we are told to act against the Kirghis. Hordes of those banditti in winter prowl as far as the Volga, along the shores of the Caspian Sea, and to the sandy desert of Naryn, where they commit numerous petty depredations. The Kozaks also patrol for the security of the fisheries, and solitary farms along the shores, or on the isles of the river: they are strongly reinforced

in winter by Kalmuks, when the Kirghis are approaching, or retiring.

At each post eight or ten Kozaks, with a Desätrick, are stationed; and reinforced in winter with ten or twelve Kalmuks. At the greatest distances, for instance, towards the sea, near Krasnoi Yar, Selitrenoigorodok, near the Akhtouba, above Mankhali, and near Kurkina Balka, there is also a corps de reserve of twenty or thirty Kozaks, and sixty Kalmuks, commanded by a Kozak officer, and ready to assist the centinels on any emergency. At Volodimerovka there are twenty infantry stationed, with a small train of artillery: and there are an officer and forty imperial dragoons of Astrakhan stationed at each of the posts of Krasnoi Yar, Bereket, and Saitovka.

Karduanskoi Ilmen, where our travellers landed, and near which they rested during the night, is a bay or lake, into which the Kigatsh flows, and whence it again issues. A guard is stationed on the shore of this bay, on account of the salt lake in the steppe called *Karr Duan*, a compound word of the Tartars from *Karr*, which signifies snow, and *Duan*, thaw; and the place has received this appellation because the snow soon dissolves on the high sandy steppe.

The salt lake of this place does not contain a pure sea-salt, but deposits a sediment, which consists of an intermixture of common and Epsom salt. It is made by a contract with the apothecaries of Astrakhan, who prepare from it, for all the Russian druggists' shops, what is called *Sal Astrakhananse*. and magnesia. This lake is above half a verst distant, E. S. E. from the bank of the Volga. It lies beyond the elevation of a flat steppe, and appears, as it were, inclosed in a bason formed by the gradual declivity of the surrounding parts of the desert. This very smooth and shallow lake is not more than an arshine deep, and the steppe rises about a fathom higher than its surface. It is oblong, and extends in a serpentine

form, being about four hundred fathoms in length from S. E. to N. W.; but scarcely sixty fathoms broad. From the S. E. border of this lake, a narrow valley, situated somewhat higher, extends in a western direction for twenty-five fathoms, when it grows wider, and declines into a saline marsh, about seventy fathoms from E. to W.; and with certain winds it is inundated with the salt water of the lake. This saline marsh, as well as that of the lake, is like the black, hepatic, and fetid mire usually found in all salt pools. In dry summer weather there is an incrustation of salt and sand formed of different degrees of thickness, the upper part of which is sea-salt, and under it a kind of Epsom salt; both are imperfectly crystallized. This phenomenon, M. Pallas thinks, may perhaps be attributed to the premature precipitation of the Epsom salt, which more readily assumes the crystaline form. In consequence of the considerable quantity of the late rains, the salt which had been crystalized nearly was for the greatest part again dissolved at the period he examined it. At the bottom of the lake, he found a stratum of loose marine salt in irregular angles, and easily soluble; which in a manner constituted one half of the lixivium.

The marine plants which he found upon the edge of this lake, were the *Nitraria* in spreading bushes, the *Salicornia strobilacea* and *foliata* in an erect state, and the *Frankenia hirsuta*. On the higher parts of the steppe, he observed the *Astragalus tragoides* and *alopecuroides*, *Ephedra monostachya*, and *Axyris ceratoides* in large bushes, the *Hypecoum pendulum*, the *Cheiranthus nitrarius*, and the *Ranunculus falcatus*.

On the 8th of May, in the morning, he made an excursion on horseback farther along the *Ledänetzkoi Yerik*, or ice-ditch, a spurious branch of the river which runs from the Kigatsh into the steppe. Near a place called Ledänetzkoi Pristan, where the boats are loaded with salt, he found a station of the fore-

mentioned cordon, and a guard for the salt works. About one hundred fathoms farther into the steppe, he observed, in low ground, a large, oval, saline lake, about two hundred fathoms in diameter. In this lake the salt had begun to form a loose, granulated incrustation, which the rain had partly dissolved.

From Ledänetzkoi Osero, or the ice lake, from which the abovementioned water takes its name, the travellers continued their journey on horseback about three versts to the N. W.; and after having passed a spurious branch of black, muddy, and fetid water, in stagnating pools, arrived at the *Byelye Osera*, or white salt lakes. These two lakes lie near each other, are less than a verst in diameter, and are separated from the fetid water only by a gentle elevation. The lake towards the south is of an oval form, and about one hundred and sixty fathoms long; the other, which is nearly one hundred and forty fathoms distant from the former, is, as it were, composed of two; a small oviform one, eighty fathoms in length, and a larger one, rather winding in a direction from N. W. to S. E. and three hundred fathoms long. They are connected by a narrow and marshy soil, and even at this early season deposited a common salt. The marine plants here were found to be similar to those last mentioned. They rode along the before described arm of stagnant water, and after passing near Karr Duan, which they had visited the preceding day, distant about four versts from the white lakes, returned to their quarters.

There are three small salt lakes on a flat isle, inclosed between the arm of water called Karr Duanskoi and the great Algara, and intersected by another branch of water named Yerik Mukhomar, but which I could not visit for want of a boat. Two other lakes called Teplinskye Osera, lie contiguous to each other, above Mukhomar; and a third lake is situated below that branch. In consequence of the produce of all these saline lakes, magazines for salt have been erect-

ed on the high ground of the small Kobylin Bugor, between the great and the little Algara.

On his return, M. Pallas, found that the Tartar guide, who was to conduct him through the dry steppe, had arrived. Meanwhile he had been informed by some old Kalmuks, that he would find in this country a remarkable mountainous tract, called Arsagar, at a considerable distance from the Volga; and that it contained several species of gypsum, and a peculiar rock salt called *Moril Dabassum:* independent of botanical researches, in a rocky country and southern climate, where he might expect to find many rare plants, his intention was likewise to discover this salt.

"The country of the Arsagar," says he, "was familiar to my guide, who formerly had frequent intercourse with the Kalmuks, and at present with the Kirghis; he consequently knew every noted place on the steppe. But instigated by the lieutenant who commanded my escort of Kozaks, and who was unwilling to accompany me on such a dangerous journey through the desert, he would not tell me the truth. After many unavailing solicitations, I was at length obliged to brave the obstinacy of these people; and, with a compass in my hand, I undertook my journey on the steppe against their will. After the vague description which had been given me of the environs of Arsagar, I demanded a decisive answer, whether they would endure thirst as well as myself, or conduct me by the right way from spring to spring.

"I then ordered our water vessels to be filled, and after dinner began my journey. We first passed two oblong lakes of pure water, in basons formed by nature and then proceeded a short way up the Kigatsh. We afterwards passed the saline lake Tzatzek Nor, and observed on its shore a house of worship constructed of wicker work, and a cemetery of the Kundurian Tartars, on an eminence. We then came to a small bay formed by the Kigatsh, and called Kigat-

zkoe Ilmen; and thence travelled to another detached bay, called Temahn Nor, or lake of the camels: where a party of troops is commonly stationed. After the horses had been watered, we travelled directly N. E. into the steppe, which gradually rises, and soon becomes more sandy. Proceeding four or five versts farther, we arrived at a long, dry, salt marsh, which extends in a N. E. direction; an old Kalmuk road runs along this marsh, and joins the patrol road of Temahn norskoi Karaul. In the neighbouring sand hills, deep wells had been sunk, and we observed that the sand thrown up was intermingled with shells.

" After a march of an hour and a quarter, we observed on our right. two small oblong salt lakes, which were separated by an eminence. These lakes at this time contained a small portion of marine salt, yet in spring their waters are not unfit for the use of cattle. They resembled the flat basons of the higher steppe: and nearly all the salt pits or saline lakes of this low country were of a similar appearance. A little farther on, we found another salt pit, in a direction from east to west. Twenty four computed versts from the Volga I pitched my tent for the night, on a sandy soil, near two old ditches; and immediately ordered an attempt to be made to obtain water. After sinking a well to the depth of a fathom and a half, we discovered wet sand, mixed with particles of selenite, in the form of lentils; soon after we found water, of a brackish, bitter taste, which frustrated our attempt. The horses were obliged to be satisfied with the dew of the night, as their only drink; and, at the dawn of day, I ordered a trusty soldier on horseback, accompanied by a Kozak, and our guide, to set out for the first sandy hillocks of *Salton Murat*; with a view to seek for fresh water, and to purify the wells, which I was certain could not be far distant.

" On the 9th of May, we continued without water

till one o'clock in the afternoon, when our messengers returned and brought us good news, to the great disappointment of the commandant of my escort. During these transactions, the escort was relieved by another detachment of Kozaks, commanded by a lieutenant who belonged to the garrison of Saritovka, and I then found myself disengaged from an obstinate and useless conductor. My new guide, Mr. Golubief, was a reasonable, modest man, and a lover of order; he behaved with the greatest politeness and attention during the remainder of my journey over this inhospitable region, through which he had himself many times travelled. When we were informed that good springs had been discovered at Saltan Murat, we travelled expeditiously the twenty-eight versts to that place, where we found the water already purified. The steppe continued uneven, and contained dry, circular salt pits, till we arrived at a lower plain, richly covered with grass, intersected by pits, and diversified with sand banks, where, properly speaking, the country of Saltan Murat begins.

"In the course of my travels I have met with few countries of so uniform an appearance as the steppe over which I passed in these low regions of the Volga, towards the east and west. It was almost destitute of vegetable productions, except a few peculiar and rare plants On all sandy parts of the steppe, the plants are different from those which grow on a clay soil, or on dry and saline plains; and the latter are the most naked aud wretched spots in the whole empire.

"The springs beside Saltan Murat, where we passed the night, had been found in the cavity of a sand bank. My people discovered two other springs, at the depth of four arshines, whence excellent water flowed in abundance; so that being favoured with a gentle eastern breeze, which had prevailed for two days, and ushered in mild spring weather, we passed a

very agreeable night here, and were entertained by the notes of the lark. On the sandy hillocks which produced the reed, and bushy *Artemisa*, I observed the biting *Lacerta mystacœa*, and a pretty little lizard, somewhat similar to the forementioned animal, but without whiskers, and which, when alarmed, rolls its tail upon its back. I likewise saw various and numerous insects.

"On the 10th of May, I resolved to leave the greatest part of my escort near these excellent springs, and proceed farther into the steppe, accompanied by my designer M. Geisler, the student of Pharmacy, my guide, and two Kozaks; in order that, if we should happen to be distressed for water, we might be able to send for a new supply.

"My guide continued to advance towards the east, in a direct line, to which these people are so well accustomed. We observed in different places some small salt pits, and several pools, partly filled with drifted sand and overgrown, on a hilly and verdant steppe, interspersed with a variety of sand banks, and productive of herbs, among which were, a little wormwood, and some yellow milfoil. After having travelled about seven versts, the steppe became level, and we found on its sandy soil several large tufts of the *Iris juncifolia* in blossom. Six or seven versts farther the steppe again has a wave-like surface, with several dry salt pits, and one containing salt water.

"After travelling an hour, or six versts, farther, we arrived at some hillocks of a sandy and firm clay, which my guide called *Saassik-Shoogot*. The plants growing here indicated the dry, sterile, and argillaceous soil on which they commonly thrive. The *Anabasis aphylla*, in particular, was very small and creeping; the others, as the *Artemisia contra*, and *maritima*, and the *Ephedra*, were abundant and flourishing. Besides these we saw that enormous large plant the rhubarb of the steppe, or *Rheum*, *Caspium* which also embellishes this barren region. The mo-

ther root of this plant was in many places as thick as a man's arm, and each of the three leaves which grow close to the ground, was frequently upwards of an arshine and three quarters in diameter, and four arshines or upwards in circumference. Among these inflated and much wrinkled leaves, which are similar to those of the white curled Savoy cabbage, the *Coluber Berus* was frequently concealed; we also found here the caterpillar *Phalæna aulica* in great numbers. The *Ulva Nostoc*, and the *Lichen terrestris* were numerous in these regions.

" We left these gently-rising hillocks on our right. On the summit of the first, there is a sepulchral mount, overgrown with several old and large plants of Rhubarb. and surrounded by a trench. The hillocks are environed by salt pits, but beyond them the sandy steppe is interspersed with a few dwarf shrubs of Tamarisk, with very short catkins; and the *Ephedra monostachya*, which was not yet full-blown, grew here in great abundance. About ten versts from the above mentioned hillocks we arrived at a sand bank, from which issued several good springs that had probably been purified or cleansed by the Kirghis, at their departure from this country, in the present year. We resolved to pass the night at this place, where the Torloc, or *Pallasia*, was very common. The cavities between these hillocks served in winter as places of shelter for the camels and sheep, and were nearly filled with the dung of those animals. On the pasture ground we found in abundance the *Scarabæus Ammon*. Towards the N. E., but at a great distance, we descried several large sand hills, which probably belong to the chain of Naryn, or Rynpeski. Three other hillocks, which my guide called *Bugly Shoogot*, were situated to the S. S. E.; and those which produce the rhubarb aforementioned, were to the S. S. W.

" On the 11th of May, in the morning, we set out with a mild east wind; but our guide perceiving that

we travelled too far towards the east, we changed our route, and proceeded more to the N. W. The steppe became progressively more mountainous, and at different places we observed salt pits unconnected with each other. The surface of the soil was covered with a variety of grasses: the country in general appeared to rise, and presented an uninteresting uniformity of surface. At the distance of twenty-four versts the steppe became still more hilly, and had numerous deep pits, like covered wells, but too large to be considered as such. We travelled ten versts farther through this rising, uneven country, when we suddenly came in sight of a vast barren plain, and at the distance of about a verst and a half we observed several white hillocks of gypsum.

"The soil of the tract over which we travelled in a southern direction to these hillocks, was unlike that which we formerly met with; being a mixture of marly gypsum and white clay, which produced several rare plants of a different species from any I had before observed in the course of my journey.

"Although the atmosphere was cooled and agitated by the wind, we felt an insupportable heat on approaching the hillocks of gypsum; a remark which I had before made in all my botanical excursions to these places, even when there was but little sunshine. The refraction of the solar rays from a white soil, and the numerous hollow and spongy surfaces which concentrate and increase the heat, and with which this country abounds, appear to be the cause of this phenomenon.

"On my arrival, my first care was to procure water, which is uncommonly scarce in this selenitic, and, in many respects, remarkable country. I ordered my guide after he had discovered the springs, to take the direct road to our people whom we had left near Saltan Murat, and conduct them to us.—Both objects were accomplished agreeably to my wishes.

"After a fatiguing day, which, notwithstanding the heat, I employed in surveying the selenitic hillocks, without resting a moment, and being encouraged by the discovery of new and beautiful plants, I pitched my tent for the night, near the purified springs about five versts westward of those hillocks. In the course of the evening the wind changed to the N. W. and brought on a little rain. On the 12th the sky cleared up, and we had some sunshine; the wind, however, shifted to the N. E. On the 13th, in the morning, there was more rain, and a cloudy atmosphere. In the afternoon of the same day our people, whom we had left at the springs of Khonggor, arrived; and I employed this and the following day in collecting plants, examining all the hillocks of gypsum, and salt pits in the vicinity of this place.

"Arsagar, or, as the Tartars call it, *Ak-kala*, or the white city, stands on a gently sloping height, which rises gradually for several versts; it is about eight versts in circumference, and nearly oval. The declivity of this elevation is a sandy steppe, covered with verdure, except on its northern side, where the soil is more saline and argillaceous. When our travellers approached these hillocks of gypsum, which did not strike the eye till they came close to them, because of their extreme steepness, as well as the inner surface of their basis being arched, they observed several sinkings of the earth, and pits which usually presented rocks of gypsum, and sometimes gulphs and clefts. In every direction they remarked spots which produced scarcely any plant but the variegated Lichen; and the soil of these spots consisted of a hollow sounding gypsum. Even the base, around which cliffs of this fossil were scattered on the southern side, generally presented a clayey surface, mixed with gypsum, and overgrown with moss. On the northern and inner parts between the hillocks, the soil is sandy, and produces good grass. The southern base beforementioned has several very considerable cavities, some of which are dreadful perpendicular

gulphs, and others run obliquely: in the latter a solid alabaster is occasionally found. This oval and somewhat obtuse summit of the eminence, which is surrounded by about fifty cliffs of gypsum of different sizes, is five or six versts in diameter, and runs in a longitudinal direction from north to south. The middle of this eminence, is overgrown with the *Stipa juncea*, and the *Axyris ceratoides* with a high stem; and I also remarked, at different intervals, several sinkings of the earth, one of which appeared to have lately taken place, and exhibited a thick stratum of sand, around the edge of the gulph.

"Among the selenitic hillocks of Arsagar," continues M. Pallas, "I met with some of a larger, more elevated, and partly oblong form, which are a different kind of mountain. One of these is situated N. E. at the extremity of the whole ridge, and the other at the W. N. W. The first is the highest and most considerable, being nearly two hundred fathoms in length, and rather steep. It has on its summits two large and two small knolls, the latter of which lie between the former, and resemble the sepulchrals hillocks. This ridge extends from N. N. W. to E. S. E. and the knolls are in the same direction. The figure of the mountain, independent of the hillocks on its top, is an oval spheroid, which rests on another oblong, though more even base. This extensive base, and the mountain itself, as far as the highest eastern knoll, are covered with small, black and white lenticular pebbles, which must have assumed that form under water. On the summit of the ridge, I found the bivalve shells of the Caspian Sea, in a good state of preservation; a proof that the waters of the sea formerly covered the other selenitic rocks, as well as this eminence that rises from twelve to thirteen fathoms above its base.

"From the summit of this ridge we beheld the saline tract towards the north, and the whole group of selenetic hillocks and cliffs. Several elevations appeared in the north-east region, on the extremity of the level

steppe, and were separated by an extensive plain. Some heights intervened, partly in an eastern and partly in a direction towards the north-east. The whole number amounted to nineteen hills, besides twenty-nine of a smaller size, which we observed between the S. E. and S. S. W. scattered at a considerable distance from each other.

"On the top of this mountainous ridge, I found a low, variegated daffodil, with broad leaves, winged capsules, and a plurality of flowers, but which were faded; the bulbous roots of this plant, which I preserved, did not produce flowers: this circumstance I the more regretted, as I had never before met with it, and as it was indisputably a non-descript.

"Another smaller ridge, at the distance of half a verst westward, evidently contains alternate layers of clay and gypsum. But the oblong hillock, situated between the two before described, is more remarkable, as on its very summit the Kalmuks have sunk two shafts to discover lamellated selenite, or *Glacies Mariæ*, with which they whiten sheep-skins. On the top of this eminence, they have piled up several flat stones, intended as a mark to the miner. The mountain consists of a soft gypsum, interspersed with large plates of lamellated selenite, often several spans thick. Its side presents irregular horizontal layers, which in some places are of a wavelike form, and in others there appear broken strata of a solid grey-edged alabaster, in plates from half an inch or less, to two inches and upwards in thickness. The thicker layers are white, with parallel grey lines, striped at unequal distances: the thinner strata are grey, with dark parallel lines; but the former only are susceptible of a polish like marble.

"The springs of Khonggor, near which we pitched our tents for some days, lie towards the west, about five versts from Arsagar, beyond an open steppe, in a verdant and nearly circular spot which surrounds an oval sand-bank, overgrown with reeds. Two deep pits, and several shallow ones, had been dug in the

lower and more western part of the ground; but they were filled with sand, so that we were obliged to sink two others, nearly two fathoms deep, to obtain water. These springs first afforded sweet and agreeable water, but in less than twenty-four hours it became impregnated with a digestive and Epsom salt, and a small quantity of selenite, similar to medicinal springs supersaturated with alkali. Hence we could not quench our thirst with this water, as it had a debilitating effect, in proportion to the quantity we drank.

"On proceeding in a straight line from Arsagar to Tshaptshatshi, we passed numberless salt marshes and saline plains: the springs of Khonggor were in the western tract of sand, which extends from the vicinity of Tshernoyarsk as far as Saltan Murat, and its particular parts are distinguished by different names: this chain of sand-hills is connected by a sandy steppe.

"On the 15th of May, our party left the springs of Khonggor; their guide was of opinion that they ought to quit the saline tract, and direct their march W. N. W. towards the western sandy district, in order to advance on the direct road to Tshaptshatshi, and thus be certain of a supply of water.

"The sandy steppe at first presented small valleys in different situations, extending generally from west to east, and richly covered with verdure, interspersed with many rare and beautiful plants. We expected to find water in the low grounds, but the appearance of the *Salsola prostrata* and the grey sea-wormwood only afforded hopes of brackish springs."

After a journey of several versts, they allowed their horses to rest, and afterwards continued their route at a slow pace, on account of the almost insupportable heat; and after travelling about four versts farther, over several oblong sand-banks, they arrived at a sand-hill, which commanded an extensive prospect.

On account of the excellent spring which nature had placed on the very summit, they recognised it to

be that remarkable hill called by the Kalmuks *Tässken.* Between this and the country of Saltan Murat is an extensive and high sandy soil, known by the name of *Mukhor;* and towards the north a succession of sand-hills, called *Bayann* and *Soonkhuduk:* the hillock of Tässkenn stands isolated on the plain, is several fathoms high, and has on its summit a circular cavity, three fathoms deep, which contains a well of four arshines perpendicular, where they found excellent spring water almost an arshine deep: the pleasure they experienced on making this discovery may be easily imagined. The reed *Nepeta graveolens* and wild hemp grew abundantly on the sides of this cavity.

On the 16th, in the morning, the travellers continued their journey mostly towards the N. W. and N. N. W. over a level steppe, for about ten versts, when they arrived at some small elevations, from which they could descry on the right a long extent of sand-hills: these appeared to be the southern continuation of the sandy tract of Naryn, and induced them to conclude that they still travelled too far eastward. They had scarcely turned towards the west, when they arrived on an argillaceous barren steppe, and immediately discovered plants of a kind different from those of sandy regions; such as the sea-wormwood, *Centaurea salmantica*, and *Astragalus physodes;* and after travelling about ten versts over this steppe, reached the upper road of the caravans of Orenburg, which Dr. Pallas formerly noticed in his travels during the year 1772.

As their bread was almost consumed, and as Dr. Pallas was desirous of revisiting the country of Tshaptshatshi, on account of its plants, a Kozak was dispatched with letters to Yenataevka, to procure the necessary provisions. He left the greatest part of his escort at the encampment, and proceeded on the 16th to Tshaptshatshi, where he proposed to stay a night,

and employ the following day in botanical excursions.

The small lakes on the steppe, in the environs of Tshaptshatshi, had at this time a plentiful supply of tolerably sweet and potable water. Even one of the two vallies between the hillocks, which was overgrown with bulrushes and reeds, abounded with good water; but in the other valley, where the rock-salt had crystallized around its edge, the water was of a saline taste.

The place where he had formerly observed this salt on the surface, was now filled up; but they found it by digging in one of the pits, in the western part of the valley. In this pit it was evident that the rock-salt did not form a completely horizontal stratum, but had an inflected superficies, and was irregularly waved with grey streaks, apparently originating from a black mire. Immediately above this bed of salt, there was a waved stratum of grey clay, about an arshine thick, and covered with a sandy marl, which forms the whole of the incumbent surface.

Besides the two principal vallies, there are some adjacent cavities, in the form of basons, which appear to have originated from declinations of the earth; and where the sheep of the Kirghis had wintered. Wild tulips, as large as those produced in gardens, flourished on the fertile declivity.

On the most elevated N. W. summits of the hills, a soft porous gypsum is found on the surface, in precipitated layers. The hillocks and rising grounds of Minggan, which can be seen from this place, appear evidently to form a chain of communication between Tshaptshatshi and Arsagar. Towards the N.W. the salt-marshes extend in the same direction.

Here they observed innumerable swarms of gnats, but as they were encamped on a detached eminence and as the weather during the night was tempestuous, accompanied with thunder, they were not incommoded by them. On the return of morning, however, they

discovered under their beds some unwelcome visitors, in the yellow scorpions of the country, though their sting is not dangerous. The short-headed lizards were innumerable in the infertile and saline spots. The females, at this time, were all pregnant with eggs; and M. Pallas remarked that this little animal always had the general colour of its skin similar to that of the soil it inhabited.

In the vegetable kingdom, he observed scarcely any new plants. The *Delphinium atropurpureum*, was now in bloom in the vallies; which plant he likewise noticed near Sarepta, in the declinations of the higher regions. He also found here the *Verbascum Phœniceum*, *Ranunculus lanuginosus*, *Erysimum cheirantoides*, *&c.* The *Rheum Caspium* grew luxuriantly, and displayed its juicy seed of a blood-red colour. The plants advancing towards bloom were, the *Sium Falcaria*, *Peucedanum anagymnodes*, and *Eryngium planum*, the stalks of which now afforded a very delicious pot-herb. Besides these, he also remarked, particularly on the saline spots, the *Anabasis*, *Salsola fruticosa*, *lanata*; *Polycnemum oppositifolium*, and similar plants.

On the 17th, in the evening, he rejoined his escort, which had been left behind at Burlukhuduk; and immediately ordered the horses to be harnassed, to hasten his return during the night, and to meet the expected provisions, of which they begun to feel the want. Towards the dawn they encamped on a wave-like, sandy, and verdant steppe, somewhat farther westward than Soon-khuduk. Here the *Allium Caspium* blossomed in great abundance. After baiting the horses, they pursued their journey through Ordelyk, and met two numerous caravans of Tartar and Armenian merchants, who were travelling to Orenburg; in the afternoon, after passing the parallel ridges of Ordelyk, and the last sandy eminences, they reached the beautiful low country on the banks of the Ashuluk, a lateral canal of the Akhtouba, between Urakmullah, and Ashuluk,

two posts of the military cordon. At the latter post they found springs in two different places: the *Moluccella tuberosa* grew to a very large size, and was in full bloom on the argillaceous sandy height.

About six versts beyond this place, the Ashuluk deviates from its lateral course near the Akhtouba, and flows in a winding channel through a charming verdant and extensive valley, which the retreating heights of the steppe here present to the eye; and this river again falls into the Akhtouba, near the military post of Dolotkhan. In this valley M. Pallas found the following plants in full bloom, and growing in abundance; the *Carduus nutans*, *Gratiola*, *Arenaria rubra*, *Potentilla bifurca*, and *supina*; while the *Triticum repens* was the most general species of grass. The Volga commonly inundates a part of this low country every year; but that river remained unusually low at this season; its stream being scarcely two thirds of the height formerly remarked. The *Tetrao arenaria*, in the Tartar language Bulduruk, flew about here in great numbers.

Our travellers left this valley on the 19th, and proceeded to Selitranoi-Gorodok, about twelve versts distant. In their route they observed several villages of the Kundure Tartars, or Manguttes, who are the only descendants that remain of the ancient horde of the Nagay Tartars. About half way they saw the ruins of some ancient Tartarian buildings: this country has received the name of Kasan, from a large iron saltpetre kettle lying on the bank of the Volga, and which, according to a tradition of the Tartars has been thrown on shore by a flood.

The abandoned saltpetre work, called Selitranoi-Gorodok, is thus described by Dr. Pallas; "it is situated in the midst of a hilly tract, extending to upwards of ten versts in length; here, along the banks of the Akhtouba, on a place from one to two versts broad, we discovered," says he, in "every direction, heaps of rubbish, traces of buildings, and tombs of brickwork,

being the ruins of an extensive city of the Nagays: there had been a small fort erected on a hill, which unquestionably contained the principal and most elegant buildings of the place, and was surrounded by a strong wall; but at present the fort, which was originally built for the protection of the salt-petre work, is in a ruinous state, together with its dependent buildings. We particularly remarked the remains of two buildings, the most magnificent of which has lately been cleared of its rubbish, with a view to discover treasures: the other, if we may judge from the existing ruins, appears to have been a dwelling-house, with many apartments: the former of these buildings, as is evident from its foundation and sepulchral walls, has been the family mausoleum of a Khan, with a superstructure which probably was a house of prayer.

"This venerable place, as we were informed, has been plundered of many treasures, and whole coffins covered with silver. The fabric forms an oblong square, in a direction from N. N. E. to S. S. W. about twelve fathoms long, and eight fathoms and a half broad, when measured on its southern point. We could distinctly trace two equal divisions, on the northern side, beneath which were the sepulchral vaults, as is obvious from the tombs that have fallen in; while the southern division, especially on its portico, has been ornamented with Gothic pilasters, columns, and arches, the fragments of which are still distinguishable. Its foundation walls are nearly two fathoms high, and upwards of two ells thick. In the whole brickwork, which consists of beautiful broad squares, disposed in the most regular manner, there is a degree of taste and elegance of which I have no where seen an instance among the ruins of the Tartars; the outside of the wall is not only embellished in all the interstices between the bricks with glazed earthen ornaments, of a green, yellow, white, and blue colour, in triangular and other figures, but we also observed on the principal front of the building, the remains of

Gothic stucco-work, which was decorated with glazed figures, such as artificial flowers, shell-work, nay, whole tablets in the Mosaic style.

"But the tooth of time, and the depredations of the vulgar, have many years since converted these remarkable vestiges of antiquity into heaps of ruins. Formerly whole cargoes of bricks were carried from these buildings to Astrakhan; though, on account of the excellent cement, the workmen who were employed in demolishing entire walls, were obliged to destroy at least two thirds of the bricks. Tradition relates many extraordinary stories of the coins and precious relics which were formerly dug up and collected here in great quantities, but I doubt whether many of those antique treasures have been rescued from the plundering barbarians, and judiciously consigned to the antiquarian; or whether any of them have been transmitted to the cabinet of Russian antiquities, which belongs to the Imperial Academy of Sciences.

"At a short distance from this place is the military cordon of the Ashuluk; above which that branch issues from the Akhtouba. After travelling over a second eminence, we reached Selitranoi-Gorodok, where we found only a wretched fisherman's hut, preserved merely to maintain the proprietor's right of possession, who has been entirely ruined by the establishment of a saltpetre-work, so that the rusty kettles of this relinquished manufactory lie scattered along the bank of the Akhtouba."

Our travellers here dismissed their escort of Kozaks and Tartars, who had accompanied them through the steppe; and on the 20th at noon continued their journey. Above Selitranoi considerable eminences of sand descend towards the Akhtouba, and form what are called the five steep banks, in the Tartar language, Bish-Dshar; and in the Russian, Pat Yary. Between these heights there are beautiful verdant glens, some of which contain salt pools, where the *Lepidium crassifolium* grew with thick roots, similar to those of

horse-radish. They passed hillocks which the Tartars call Shoggasy: one of these is appropriated for their cemetery. On another isolated hillock of a conical form, the Kalmuks who were stationed here at the military posts have erected a singular monument. It is a circular column, raised on the very summit of the hill, and constructed entirely of the skulls and jaw-bones of horses, closely adapted to one another: around it they have made a low wall and fosse, ornamented with the bones of those animals disposed in regular order. An epidemic which prevailed some years ago, and destroyed a number of horses belonging to the military piquet, as well as to the Kirghis who passed the winter here, afforded the materials for this monument. On its top is placed a horse's head of an extraordinary size, with the nose pointing towards the east, while the other heads are placed with their noses inwards.

They were overtaken on the above-mentioned hillocks by the first thunder-storm of the season, accompanied with a heavy shower of rain. The military post of Gory Karabali is stationed on these heights, from which, in a serene evening, attended with continual flashes of lightning, they arrived at an extensive low country called Karavaily; it was entirely overgrown with the *Holcus odoratus*, and the *Triticum repens*. "In this valley," says Dr. Pallas, "were encamped numbers of Auli, or migrating hordes of the Kundure Tartars, among whom was the family of my guide Arslan, one of the most wealthy elders of that nation. I found felt tents prepared for us here, where we passed the night the more cheerfully, as in the neighbourhood of temporary encampments surrounded with various herds of cattle, the gnats in a manner disappear; for at this season those insects are innumerable along the Volga, and allow no rest to the traveller, if unprotected by a proper tent.

"The Kundure Tartars, whom I formerly found in their peculiar felt-tents, in the form of baskets,

which could not be taken to pieces, but were placed on poles supported by two-wheeled carriages, had now begun to dwell in huts similar to those of the Kirghis: their former method of constructing tents was likewise common among the Nagays; but the present form has probably been adopted from the Kirghis, who visit these countries every winter, and whose tents, as well as those of the Kalmuks, are made in a more ingenious manner: they consist of several pieces, which can be disjoined, and thus form a more capacious and convenient tent. All that I can add respecting these wandering tribes is, that each wealthy Tartar family commonly has two tents, one for the reception of their visitors, and the other appropriated to their females: the latter is generally constructed after the ancient method;* besides which, according to the number of the family, they usually have one or more covered two-wheeled chariots for their wives and daughters: these chariots are painted of various colours, and on the fore part there is commonly placed a chest covered with ornamental tapestry, and containing their best clothes; the inside of these vehicles, which are generally drawn by two oxen, is occupied by the female part of the family during their migrations. Besides these chariots, they have one or more two-wheeled carts, called Araba, which are loaded with their tents, chests, and other heavy articles: the moveables of each family remain together on their journey, and in regular order: the hut is placed on the axle-tree of the carriage, in which the mistress of the family always precedes the caravan: the flocks and herds are driven by men on horseback, and each species of cattle proceeds in a separate drove. When the tents are pitched in a place selected for an

* The Kurdes, who inhabit the heath of Mogan, employ the most simple means in constructing their tents, which might be very convenient for light troops. They place two long bent poles transversely, fasten them at the centre above, and fix their ends in the ground; they then cover them with felt, or mats of sedge.

encampment, a variegated coverlet is raised on a long moveable pole, to the windward of the aperture that emits the smoke, in order to promote its ascent from the tent. At a distance from the camp there is a cemetery on an eminence; these sepulchral monuments have square walls of a greater height towards their angles, and are erected only for the wealthy and the priests, while the lower classes of the Tartars are buried beneath small heaps of earth or stones.

"Their dress differs in several particulars from that of the other Nagay tribes. The girls wear a sort of red cap, made of the rind of trees, in the form of a bee-hive, and ornamented with pieces of tin. Corals and small pieces of coin are suspended around this head-dress. The gown is made of variegated silk stuff, has long narrow sleeves, and is adorned from the breast to the waist with tassels of tin or silver, buttons, little bells, and rings. They wear a strap or cord over the left shoulder, to which is attached a tin case, containing amulets, and usually a large shell of the genus *Cypræa*. The women are the most inelegant beings imaginable; and, in summer, dress in an upper gown of an uniform colour, a long white cloth on the head, and over it a common fur-cap. In the perforated right nostril they wear a ring, adorned with corals, pearls, or precious stones. This is also considered as an ornament by the more elegant ladies of Astrakhan.

"According to the latest calculation, the number of this people, in the whole district of Krasnoi Yar, amounts to one thousand six hundred and thirty males. They lead a wandering life along the banks of the Akhtouba, from Krasnoi Yar to the vicinity of Sassikol; and are rich in flocks of sheep, but more particularly in black cattle, which they employ chiefly for drawing their chariots and baggage-carts; because they are not yet provided with camels. Their horses are numerous, but not of the best breed."

On the 21st, in the morning, Dr. Pallas and his fel-

low travellers, left the pleasant vallies, and travelled over a high sandy ridge, which, as well as the former, is called Karavaily where the upper military post of Karabalinskoi is stationed, nearly opposite Yenataevka.

After traversing several ridges and plains, they reached the Sassikol, which is a false branch of the Akhtouba, and runs to the South and South East, in a serpentine direction, into the steppe. This branch of water consists of connected pools and bays covered with rushes, and by which the Akhtouba inundates the country, though only at high water. It is bordered on both sides by sand-hills, which are said to be connected with the tract of sand called Burlu, that joins the sand-hills of Soon. In the month of June, when the lowest vallies are divested of their grass, and overflowed by the Volga, the Kundure Tartars retire hither; regarding this country as the upper boundary of their pasturage. The *Pallassia* grows on these hills of drift-sand in the greatest abundance and beauty, because it is never eaten by cattle.

Leaving their horses to graze on the borders of this valley; our party after having passed the first series of sand-hills, proceeded to the ditch of water which disappears farther southward. It is pretty broad in different places, abounds with fish, and is skirted by a pleasant low country, covered with sedge, tamarisks, and willows. They went along its western verge almost to its issue from the Akhtouba, about five versts below the post of the military cordon Mankhalinskoi; they then crossed it and ascended the opposite sandy eminences, which terminate in an elevated plain; and in the evening, after travelling a short distance, arrived at Mankhalinskoi; or, as the Tartars call it, Kuyutkhu, where they reposed during the night.

On the 22d, early in the morning, they pursued their journey over a beautiful champaign, which the Tartars call Alabas, where another false arm called

the little Sassikol, extends three versts into the steppe, and is accompanied by sand-hills. Near this open country the military cordon Akhtoubinskoi is stationed; an on a height, near its upper extremity, is the post Solotukhino; in the vicinity of which the Governor of Astrakhan has established a farm for rearing cattle. From this neighbourhood, towards the source of the Akhtooba, the country is low and rich in wood, which has been spared by the hordes of Kalmucks, and thence called Setterta-Modun, or the sacred wood, corrupted by the Kozaks into Sikkerta. Farther up the Akhtouba there is a still more beautiful sacred forest, and another below Sassikol; but these, also, destructive self-interest will soon extirpate.

Dr. Pallas sent his baggage directly to Volodimerovka, the great Slobode opposite Tshernoiyarsk, with directions to prepare for his passage over the river near that place. Meanwhile proceeded to revisit the mountain of *Bogdo*, situated in the interior of the steppe, and which is distinctly perceptible from Solotukhino, at the distance of thirty-five versts.

"After a brisk ride," says Dr. Pallas, "we reached the mountain of Bogdo towards night, during a dreadful thunder-storm, accompanied with a little rain, which was however but a short interruption of the fine weather, so that I was enabled to employ the following day with advantage. I found the same plants that had formerly been the object of my researches in this country. On the calcareous and rocky back of the mountain, I now saw the *Lichen esculentus* in uncommon abundance, which I formerly had not remarked in this place. The thorny *Hedysarum*, mentioned in my former Travels, I found on the projecting side of the mountain, which consists of a calcareous marl, where this indigenous plant is peculiar to the spot. Its far-spreading root is almost as sweet as that of liquorice. As the level ridge of the mountain, when I revisited it in July, had been scorched in consequence of a recent fire on the steppe,

the very numerous and venomous tarantulas, *Phalangium araneodes*, appeared to have retreated to the highest barren and rocky summit. Here I found them of different sizes, under almost every flat stone; an assemblage of these insects I had never before observed, as they usually live in a solitary state.

"On the same day, the 23d, after having made a botanical excursion, from three o'clock in the morning till the afternoon, and given sufficient employment to my designer, I set out on my return to the Volga, and travelled, without resting, till night, sixty versts to Volodimerovka. On the road I met a Kozak who, together with agreeable letters, and much wished-for refreshments from Tshernoiyarsk, brought me intelligence that my affectionate travelling companions waited for me there. During the succeeding night, we made the necessary preparations for crossing the river, and notwithstanding a strong wind which sprung up from the S. E., we set out before the dawn, in two barges, from Volodimerovka. This small place has at present a population of three hundred and ninety-eight males of Little Russia, together with other inhabitants. I have already mentioned that the Volga is of an extraordinary breadth near Tshernoiyarsk. It also forms here two branches, which are divided by sandy isles. We embarked when the river was not agitated by the usual gales from the S. E. and N. W., which in this place are often fatal to passengers. But scarcely had we reached the middle of the very extensive current of Volodimerovka Voloshka, when the wind became so impetuous, that our ten-oared shallop was every moment in the most imminent danger, by the waves breaking over us in torrents. We felt still greater apprehensions for the safety of the barge which contained our carriages and baggage, till we saw it lie to, on the farther side of the collateral branch, near an island, and afterwards proceed under its protection, at a considerable distance behind us. We continued our course on the

open river, not without danger, and soon lost sight of the barge. At length, after the greatest peril, and not till our rowers were completely fatigued, we reached the opposite bank of the greater Volga; but we were not able to pass the point of land which forms the bank of the river immediately above the fortress of Tshernoiyarsk, where the breakers were at this time too dangerous. We therefore landed above that point, and proceeded on foot to the fortress. The continuance of the tempest through the whole day, and the following night, excited our anxiety for the safety of the other boat; till at length we had the satisfaction to see it arrive on the subsequent morning.

"On the 25th we joyfully set out for Sarepta, where we arrived at the dawn of the following day.

"The country of Sarepta, so advantageously situated for increasing the knowledge of plants and insects, engaged my attention so much in the month of June, that I did not think of my future journey. I was, however, much against my inclination, obliged to continue here part of the month of July; on account of the insupportable heat occasioned by the steppe, which was on fire to a great extent, on both sides of the Volga; and likewise from the circumstance that my daughter caught the small-pox, doubtless the second time, at Sarepta, when this epidemic had begun to diminish, after having raged with violence since the beginning of winter.

"Wishing, however, to undertake a journey during the fine weather, and to visit the steppe beyong the Volga, I travelled, on the 5th of July, to Tzaritzin, in order to be ferried over the river. I found this city almost entirely consumed by a fire, which broke out two days before my arrival. On the 6th I crossed the Volga, and continued my journey between that river and the Akhtouba, over a low country intersected with small branches of water called *Yeriki*, as far as Besrodnaya Sloboda, or Verkhnei Akhtou-

binskoi Gorodok, eighteen versts distant. The sandy and marly soil of this low country produces most excellent crops of hay. The beautiful oak trees here, as well as every where along the Volga, are intermixed with the *Ulmus campestris* and dwarf elms, Tartar plane trees, poplars, willows, aquatic elder-trees, and other shrubs. Beyond Barskoi Yerik, but particularly around Olovatoi Yerik are found, besides those already mentioned, a number of large mulberry-trees bearing fruit of a white, black, and pale violet colour.

"Besrodnaya Sloboda has lately been adorned with a new church, which was attended with great expence to the village, and proves its increasing wealth. On the contrary, the house of M. Rytshkof, the ex-director of the culture of silk, which has been dearly enough paid for by the Crown, has, in consequence of being ill-built, become a ruin in less than fifteen years. A similar fate threatens the house built by him for the rearing of silkworms, below the village, at the edge of the high steppe.

"Her Imperial Majesty Catherine the Second, anxious to give activity to the cultivation of the silk, which had for many years been greatly neglected, condescended to give instructions, in her own hand-writing, for the management of this profitable business. The new Director found means to deliver to the Court in the same year six pood of silk; a larger quantity in the following year; and by these and other personal means which he employed, he succeeded so far as to induce the Court to enlarge the institution. In 1779, the Court issued an order, that the Imperial College of Economy should furnish to the Director one thousand three hundred families of voluntary peasants, from the aforementioned Imperial Dominions. These families, were transplaced within two years, and settled along the banks of the Akhtouba in six villages. The immunities granted to their predecessors

were to be continued to them, as long as they should employ themselves in the culture of silk, not for the benefit of the Crown, but their own emolument, and pay their rents or taxes in silk, at the low price of one hundred and twenty rubles a pood.

"The same difficulty, however, was experienced with these as with the other cultivators of silk: they had an invincible and rooted dislike to the employment, and consequently were not anxious for its increase. The continual impediments that arose, and their own obstinacy, prevented them from enjoying the advantages they would have acquired, by directing their attenton to this business, without relinquishing the fisheries. These they might likewise have carried on, by occasionally employing their wives and children in the establishment. Although cogent measures were resorted to, the culture of silk yearly decreased; nay, the malignity of the peasants rose to such a degree, that, to destroy the silk-worms, they sprinked them with salt-water. The perpetrators of this atrocity were indeed discovered, and punished, by the government of Saratof; but as the peasants also endeavoured to extirpate the mulberry-trees of the valley, by setting fire to the grass, the silk manufactory was stopped by an order of the court; and it was left to the option of the peasants, whether they would continue the culture of silk-worms for their own advantage, while, in respect to rents and taxes, they would be put on the same footing with other subjects. From this period, 1714, none of them have evinced the least inclination to cultivate this branch of trade, and they even endeavour gradually to destroy all the mulberry-trees.

"It is remarkable, that the repugnance of the peasants to the cultivation of silk-worms should have been hitherto so invincible; for their malignity has also been evinced in the silk manufactory established at Staroi-Krym. This species of obstinancy has proved a great impediment to the prosperity of Southern Russia, where the mulberry-tree is abundant and flourish-

ing. It is quite otherwise with the Armenians and Grusines, or emigrants from Georgia, ws well as with the Tartars and Greeks in the Crimea, who voluntarily carry on this branch of commerce. The most certain means of introducing this source of national wealth, and of saving the Empire upwards of a million of rubles, which are annually paid to the Turks, the Persians, and the Italians, for their silks, would be to establish colonies of the Asiatic nations, particularly in the peninsula of the Crimea, where the mulberry-tree grows uncommonly fast, even in a dry soil, when properly watered.

"On the whole, the Asiatic method is far preferable to that formerly practised on the Akhtouba, where much time and expence was wasted in feeding the silk-worms with gathered leaves, which soon decayed, and rendered the frequent shifting of their beds necessary. The Persian or Boukharian rears his mulberry-trees to about six feet high, which they attain in four or five years. He then begins to lop their tops and branches, which are given to the insects, as soon as they have sufficient strength, by placing them gently on their beds. By this means the shoots remain fresh and succulent, and the worms devour them even to the woody fibres, so that no part of the nutritive foliage is wasted. As these insects are every day supplied with food, the leafless branches gradually form a kind of wicker-work, through which the impurities pass, so that the cheerful worms preserve the requisite cleanliness without trouble to the cultivator, and speedily attain a vigorous state. In this manner they are continually supplied with leaves, till they prepare to spin, when small dry brushwood is placed in all directions over the leafless branches, and on this the worms spin their silk. Two persons, an adult who lops the branches, and a child who collects them, are thus enabled quickly to procure food for a great number of silk-worms. The mulberry-tree in our climate produces new shoots twice every summer.

These shoots acquire in the same year the firm consistance of wood, and in the subsequent spring afford an abundant crop of foliage. In Persia and Boukharia, where the summer is longer and vegetation more vigorous, the shoots may even be cut twice a-year. The tree, by this method of cutting, remains always low, and produces a greater number of young shoots from its trunk, as well as from its branches, every subsequent year. By stripping them of their leaves, however, many branches wither, and not only the buds are lost, and most foilage wasted, but the worms receive less nourishment, as the leaves sooner decay. It has been remarked in the silk establishment near the Akhtouba, that the worm, when compelled by necessity, eats the leaves of the *Acer tataricum*, which resemble those of the mulberry-tree."

On the 7th, Dr. Pallas and his party again proceeded on their journey. He informs us that since his last visit to this country, two considerable villages have been built below Besrodnaya, and one above it, which is called the great village Pogrominskaya, and has been colonized by boors from the Imperial domains. Sredney Gorodoc, at that time, likewise received an additional number of inhabitants.

After passing through several vallies, Dr. Pallas pitched his tent for the night in the beautiful valley of Tzarevy Fody, or the royal residence, with the view of investigating several Tartar antiquities in the neighbourhood. Among these are three ruins, enclosed by a square bank of rubbish, without a ditch, and with an outlet towards the south.

The monument near the Podpalatnoi-Yerik is a sepulchral mound of a flat form, raised on a square eminence, and consisting of six contiguous and very low arches covered with earth: its base is about one hundred and fifty paces in circumference, and not above a fathom high; but, together with the square on which the vaults are erected, it is three fathoms of a perpendicular height. This square monument is

enclosed by the foundation of a thick wall, which consists of an imperfect sand-stone, quarried on the opposite bank of the Volga. There appears to have been an entrance in the northern side of this wall, which forms an oblong square of twenty-nine fathoms long, and twenty-seven fathoms broad. Its base, measured from north to south, is forty-seven fathoms in extent, and fifty-six from East to West. The space round the vaulted hillocks is considerably excavated within this enclosure; and the vaults of the monument, which probably have long since been plundered of a considerable booty, deserve a more accurate description, on account of the solidity of their construction. The walls that support them are formed of pieces of rough, unhewn sand stone, about an ell high: the vaults themselves are almost flat, and consist of about six layers of square, oblong bricks, placed alternately, so that one by its breadth supports and covers two others. The spaces between them are nearly an inch broad, and filled up with a cement which in some places appears to have been poured in, while in a liquid state. It has, however, acquired such a solid consistence, that it is easier to break the well-burnt bricks, than to separate the mortar. This grey cement appears to be a mixture of unslacked lime, pulverized charcoal, and pounded sand-stone, instead of the sand used for building. In that mass he observed many particles of lime, as white as snow, which readily crumbled into dust, as well as large and small particles of charcoal; this substance being reduced to a fine powder, has probably imparted the grey colour to the cement. Perhaps the admixture of charcoal dust may produce an effect similar to the earth of Pozzola; which, however, must be decided by experiment. The durability of this cement may also be ascribed to a mixture of sour milk, which, we may suppose, must have been in great abundance among a wealthy pastoral people. In short, the mortar of these vaults is, notwithstanding

the constant moisture from above, and the saline nature of the surrounding soil, the best, hardest, and driest I have ever seen; and the ruins of the flat vaults almost resist the force of the pick-axe, insomuch that they can only be reduced by small fragments.

The popular tradition relative to this monument is, that the palace of the Khan formerly stood there. M. Pallas imagines however that this ruin, as well as the numerous vaulted piles of brick-work, are the ancient sepulchres of the Mongole Tartar Princes. and other persons of distinction. The leaden tubes, which are said to have been found near these vaults, have probably been used instead of the spiracles usually made in the Mahometan tombs.—It is certain, that in the sepulchres of this country immense riches have formerly been discovered, consisting of jewels, vases, and ornamental horse-furniture of massy gold and silver. The major part of this treasure has been secretly disposed of to the goldsmiths and merchants; while the remainder is still preserved in the cabinet of curiosities belonging to the Imperial Academy of Sciences at St. Petersburg.

About one hundred fathoms N. W. from the great mausoleum, there is a large heap of rubbish, or ruins, thrown together, and nearly one hundred fathoms in circumference: it appears to have been part of the materials of a building. About sixteen fathoms farther towards the W. S. W. is another square mass of ruins of a moderate size. One hundred fathoms N. W. from the latter, and above two hundred from the large monument, a third oblong and very considerable pile appears, which is probably the ruins of a building: and two hundred fathoms westward, there is a circular sepulchral hill, simply vaulted with bricks. This hill is opposite to, and about one hundred fathoms distant from a lake, which is a verst long, and surrounded with dwarf willows; the lake

contains a sweetish water, and is much frequented by a variety of the feathered tribe.

In some parts of this low country there is said to be a regular road paved with bricks, leading over a swampy ditch; and in other places small regular arches of brick-work are discoverable, which probably have served as a ground work for the felt tents of the chiefs in a country so rich in pasturage. In my opinion, the ruins are not the remains of dwelling-houses, but partly of mosques, and partly of vaulted chapels, which had been enclosed by walls like the modern cemetaries of the Nagays. A wandering nation, such as were called the golden horde of these countries, could no more be induced to reside in houses, than the Khans and Princes of the Kalmuks along the banks of the Volga, though the fortress of Yenatævka had been purposely established, and dwelling houses built for their accommodation.

"After employing two days in making physical and geographical observations on the desart steppe, opposite the mountain of Bogdo; on the 10th of May," says M. Pallas, "I, for the last time, ascended this singular rocky mountain, which rises in the midst of an immense plain; and while I admired the treasure of excellent salt contained in this white glittering lake, I regretted that private interest should be suffered to suppress this invaluable article: when a very inferior kind, intermingled with Epsom salt, was used for curing fish. Let it suffice to observe, that some voluntary contractors, even among the merchants of Tshernoiyarsk would readily engage to manufacture and deliver this salt at from five to seven kopeeks a pood, to the Imperial magazines of Tzaritzin, Dubovka, and Astrakhan, without requiring money in advance. But unfortunately this salt lake has, by partial measurement, been included within the limits of a private manor; and thus it is, in a great measure, lost to the community.

"On the same day we returned to Kharakhoi; on the 11th we proceeded as far as the rivulet Tzarevka; on the 12th to Besrodnaya where, after crossing the Volga, we passed through Tzaritzin without stopping, and in the evening we arrived at Sarepta.

"The whole month of July was devoted to the re-establishment of my daughter's health. It was, however, high time to pursue my journey, and to bid a last adieu to the environs of the Volga, which had twice in my life afforded me such pleasant and indelible botanical recreations. My intention was to make observations along the borders of the Caucasus, and arrive before winter at the Tauridan Peninsula, in order to make myself acquainted with this newly conquered country. I was, at first, undetermined whether I should travel by the new road through the steppe of Kuma, directly to the fortress of Georgia, near the Caucasus; or revisit Astrakhan, where I might expect to obtain many remarkable facts. Besides, the latter road, in its whole extent, leads over the former bed of the Caspian Sea: where, independent of other interesting objects, I hoped to find a rich botanical harvest of rare marine plants, which do not come to perfection till autumn. These considerations at length induced me to prefer that road, especially as the whole steppe of the Kuma had recently been consumed by fire.

"On the 4th of August, after having taken a most affectionate and grateful leave of my acquaintances in Sarepta, with acknowledgments for all the marks of friendship and politeness evinced towards me and my family, during a residence of more than three months, I returned down the Volga to Astrakhan. On the road to Tshernoiyarsk, the steppe exhibited summer plants similar to those on the banks of the Sarpa. Farther down, where the soil in most places consists of either a fine sandy marl or a pure sand, other plants gradually succeeded. Immediately below Tshernoiyarsk I saw the *Polycenemum monandrum*

growing in great abundance. I had formerly observed this plant thinly scattered along the banks of the Volga. In the sandy country below Yenatævka, the *Tribulis terrestris*, *Corispermum squarrosum* and *hyssopifolium*, grew in such numbers, that in some places scarcely any other plant was to be seen. Throughout the vicinity of Kossikinskoi Stanitz, the steppe is so completely overspread with wormwood, that scarcely a blade of grass is perceptible. There are two or three species of this plant, namely, the *Artemisia Austriaca*, *maritima*, and *contra*, which communicate a bitter taste to the cow's milk. But the beef of this place is of an exquisite flavour, and much esteemed at Astrakhan."

Before our travellers arrived at the branches of water flowing into the steppe, we came to Sharenoi Bugor, a saline, nitrous hillock, which consists of sandy marl mixed with rubbish, and is situated close to the Volga, about five versts above Astrakhan. This hill appeared to M. Pallas, worthy of attention, on account of the rich efflorescence of nitre on its surface. It ascends in a ridge from the steppe, and is highest on the side next the river. Two similar, but smaller, ridges rise in an almost parallel direction with the former between the branches of water, on the banks of which melon gardens are cultivated.

On the 7th of August they reached Astrakhan, where they remained till the 26th, and employed the interval in making useful observations, and collecting remarkable facts relative to this city and its environs.

"This semi-Asiatic and important commercial town," M. Pallas observes, "which, next to Saint Petersburg and Moscow, ranks among the first cities of the Russian empire, has been so circumstantially described by the younger Gmelin, who resided here many years, that I can add very little new. It deserves, however, to be remarked, that Astrakhan has lately been much improved in elegant houses and

public edifices built of stone. The most conspicuous of these are two commercial halls for the reception and sale of merchandize, one of which is appropriated to the Tartar merchants, and the other, which belongs to Koloustof the Armenian, is for the accommodation of the Persians. Both these buildings are finished in an elegant stile of architecture. The high price of timber has induced the citizens of Astrakhan to erect their modern houses either of brick, or a species of free-stone, quarried above Tzaritzin, on the banks of the Volga. This is certainly an embellishment to the place; though its inhabitants are much oppressed by a few wealthy individuals, who privately, and with impunity, monopolize the timber.

" The prices of wood has rapidly increased since the year 1786.

" This did not arise, however, from natural causes, nor from the increased expence of conveyance by the Kuma, from the environs of which Astrakhan is supplied with wood. Indeed, its exhorbitant rise originated in the monopoly of speculating individuals. In consequence of this advanced price of timber, that of bricks has likewise been raised from five to twelve and thirteen rubles the thousand ; a higher price than is paid in the two capitals. Not less oppressive is the advance of workmen's wages, on account of the exhorbitant price of bread. A common day-labourer, at Astrakhan, is paid from seventy to eighty kopeeks ; and a carpenter, a ruble and a half a day.

The annual variations in the rise and fall of the Volga, are marked at Astrakhan by the Admiralty, as well as by the detachment of engineers. To enable the reader to compare the difference of the highest water, where the river divides itself into numerous large branches, with that formerly observed near Tzaritzin, where it is more confined, I shall give the

highest water mark of the Volga, near Astrakhan, since the year 1774, for as many years as I have been able to obtain accurate information on that subject. The water rose

| | | Feet. | Inches. | | Feet. | Inches. |
|---|---|---|---|---|---|---|
| In | 1774, to | 7 | 2 | 1788, to | 8 | 6 |
| | 1776, | 5 | 8 | 1789, | 6 | 9 |
| | 1777, | 7 | 1 | 1790, | 5 | 10 |
| | 1779, | 6 | 11 | 1791, | 6 | 2 |
| | 1786, | 8 | 2 | 1792, | 8 | 2 |
| | 1787, | 6 | 7 | | | |

No mention is made in the above statement of the accidental rise of the waters, occasioned by the sea-winds from the S. and S. E. which are called here Morana Pogoda. It is only by the impulse of these winds, that the water sometimes inundates the low parts of the city: as the banks or mounds, which the late Governor Beketof left in the best state of repair, are now much neglected, though they would require to be raised only to a moderate height. This may also be considered as a tolerably accurate account of the natural variations of water in the Caspian Sea; since its increase and decrease, by the effect of the winds, are in a proportion nearly equal to that of the Volga.

The emoluments of the fisheries in the branches of the Volga, and the not less productive shores of the Caspian Sea, may be considered as the principal support of the inhabitants of Astrakhan: for the present state of the commerce with Persia, in that city, rather contributes to its own impoverishment, and to the detriment of the Empire. It would be difficult to find in the whole world, except on the banks of Newfoundland, a more productive fishery, or one more advantageous to the government, than those of the Volga and the Caspian Sea united. During the fasts of the Greek Church, and the weekly fast-days, which

together amount to at least one third of the year, this fishery affords the principal food to the whole European part of Russia, and its populous capitals. Many thousands of individuals are employed, and acquire wealth, either by fishing, and conveying the fish on rafts or sledges, or by selling them in the markets.

"The whole value of the sturgeons of different kinds caught in the waters of Astrakhan and the Caspian Sea, amounts, we are informed, to the annual sum of one million seven hundred and sixty thousand, four hundred and five rubles, according to the average price. It may hence be concluded, in what incalculable numbers these large fish, so rich in caviare, are continually propagated in the depths of the Caspian Sea.* They proceed in shoals to the mouths, and a considerable way up the current of the rivers, without the least apparent diminution of their numbers. This superabundance may be more clearly conceived from the account of eye-witnesses, respecting the fishery of Sallian, in Persia. As the Persians eat no sturgeon, the befor-ementioned speculators in fish have rented the fishery of that river from the Khan of Derbent, Shikh Ali, a son of Feth Ali Khan, at a certain sum, which of late years has been raised to twenty-five thousand rubles. In the season of their migration there are sometimes in one day fifteen thousand sturgeons taken with the hook, at the weirs formed across the water; nay, it is still more remarkable, that if the fishermen are accidentally prevented from working during a single day, the fish accumulate in such numbers at the weir, as to fill the whole channel, insomuch that those which are uppermost appear with their backs above water, in a river not less than four arshines, or twenty-eight English feet deep, and sixty fathoms wide. The Persian fishery, which has been established by the proprietors only a few years ago, and which, together with the rent, amounts to an expence of eighty thousand rubles, is

said to produce annually upwards of two hundred thousand rubles. It might be still more lucrative, if the injudicious fishermen would preserve the great number of fish, instead of throwing them into the sea as useless, after having collected their roes and air-bladders.

"Independent of the above-mentioned produce of the sturgeon-fisheries, the smaller species of fish, such as the carp, or Ssasani; the pike, or Sudaki; and shads, or *Silurus*, in Russian Somi, caught in these fisheries, may be valued at half a million of rubles. This sum is produced partly by the sale of the fish, and partly by the price of their fat. Besides the number of seals taken in the Caspian Sea ought to be included among the productive branches of industry.

"The most valuable production of the sturgeons is the isinglass prepared from their air-bladders. This article is principally exported from St. Petersburg to England, where it is used in large quantities, in the beer and porter breweries. The English supply the Spaniards, Portuguese, Dutch, and French, with this commodity for clarifying their wines. According to the list of exportations printed by the English factory at St. Petersburg, there have been exported in British vessels, from 1753 to 1758, between one and two thousand pood of isinglass; from 1769 to 1786, from two to three thousand; in late years, usually upwards of four thousand; and in 1788, even six thousand eight hundred and fifty pood of that article. The exportation to other countries has also amounted, within these few years, to above one thousand pood. The large and almost incredible demand has, at the same time, tended to increase the price of the different qualities of this commodity at Astrakhan itself; and on the exchange of St. Petersburg, where isinglass of the best quality, so late as the year 1778, did not exceed the price of thirty-six rubles a pood, it has lately been advanced to ninety rubles.

No caviare was exported in English vessels till the year 1781, and only twenty-six pood of that commodity were exported in 1782; but the increase of this trade was so rapid, that in the following year one thousand one hundred and fifty-one pood: in 1784, one thousand six hundred and twelve; in the two subsequent years above one thousand; in 1787, nearly one thousand six hundred; in 1788, four thousand; and in 1789, eleven thousand two hundred and fifty-four pood were exported; but in 1790, only twenty-five pood, and in 1792, three thousand seven hundred and eighty-one pood: the exportation to Italy has also amounted to upwards of ten thousand pood, within the last-mentioned years, exclusive of about three thousand pood sent to other countries; and a still larger quantity through the ports of the Black Sea and the sea of Azov.

" The price of isinglass of the worst quality has within the last years been above forty rubles, and that of the best quality upwards of ninety rubles the pood, at St. Petersburg; while the price of caviare has advanced to above five rubles the pood. From this statement we may conclude, of what importance the fisheries of Astrakhan are to the commercial interests of the Russian empire."

The above-mentioned remarks, with respect to the advantageous inland trade of Astrakhan, cannot be applied to its foreign commerce, particularly that with Persia, which is far from being profitable to Russia.

" We pay annually," says M. Pallas, " to Persia a heavy tribute for the raw silk used in our manufactories, while this article might be produced in large quantities, in the southern provinces.

" It were therefore to be wished, that the Armenians and Georgians, or Grusines, who are settled at Astrakhan, and on the banks of the Terek, would cultivate silk with more assiduity: they ought to be sup-

ported and encouraged by every possible means, especially by premiums and rewards, which certainly would not be lost to the state: the Georgians would readily emigrate in numbers to our frontiers, if government would facilitate their settlement, by advancing them small sums of money for a certain term, and granting them good lands, particularly in Taurida. By these means the southern provinces could be peopled with active and peaceable inhabitants, who might be employed in cultivating the vine, and raising that useful insect, the silk-worm.

"The importation of raw and spun cotton, and madder, is not less detrimental to the circulation of specie in Russia. Hence we cannot estimate too highly the obligation we are under to the colony of Sarepta, which has cultivated great quantities of cotton wool, and employed the German colonists on the banks of the Volga in spinning cotton yarn. Thus the females in those colonies are furnished with proper employment, their industry is encouraged, and the money remains in the country. The colonists manufacture principally the cotton of Masanderan, which, though of a more yellow colour, is softer and more tenacious in spinning than any other species, and is purchased at thirteen rubles the pood; while the cotton yarn of Boukharia is bought, according to its quality, at from thirty to sixty rubles a pood: the Nagay women at Astrakan spin annually about one hundred pood of much finer and better twisted cotton yarn, which sells at from eighty to one hundred rubles the pood. Among the Boukharian cotton yarn, there is sometimes a light brown kind, from which the undyed nankeens are manufactured, and which produces the best effect in embroideries on muslin. I have been assured that the plant of this species of cotton has a blue flower.

"It appears from the registers, that the madder annually imported into Russia, amounts to between four

and seven thousand pood. But all the respectable merchants of Astrakhan agree, that there are imported annually from ten to fifteen thousand pood, exclusive of ten thousand pood obtained by the way of Kislar; the price of which varies, according to its quality, from eleven to fourteen rubles a pood.

"To these principal articles of importation may be added a fourth; namely, the galls, of which, in some years, we receive upwards of three thousand pood; the lowest price is twelve rubles the pood of forty pounds. Our oak-trees seldom produce this excrescence, and we have but few oak forests in the southern climates. A small quantity of galls may be collected in Taurida, but it would be insufficient to render the importation of that commodity unnecessary. This article is indeed indispensable to our tanners and dyers, till we discover an indigenous production which possesses similar properties for dying black. Perhaps the importation of galls might be considerably diminished by the substitution of the *Andromedæ;* in Russian, Bolotniki; which grow abundantly in the northern morasses, and the superiority of which, in dying silk of a black colour, has long been admitted.

"We receive few commodities of any importance from Persia, except the beforementioned. The following enumeration will comprise almost the whole of the other articles of commerce worthy of notice, which we import from that country. A few otter-skins and other furs; lamb skins, brought chiefly from Boukharia; a small quantity of *Galbanum*, *Gum ammoniac*, saffron, and *Assafœtida*, which last costs from three to seven rubles the pood; walnuts, a thousand of which are sold for less than one ruble; some confections, and a few dried fruits; such as dates, Kyshmish, or small raisins without stones; large raisins, pistachio nuts, almonds, Sheptala, or dried peaches, prunes, Alitsha, or small tartish prunes, fresh and dried truffles of Baku, garlic. and rice. I had almost omitted to mention the Oriental Turkoises,

which are sold in great numbers, and at low prices, by the merchants of Astrakhan, but are seldom of a considerable size, or without some defect; they are mostly worn in rings, and clumsily set in tin. I purchased a single Turkois for two hundred and fifty rubles; it was of a short conic form, and upwards of an inch in diameter; this stone would have been of great value, had it been free from a defect in the colour near its edge. The Indians who reside here also occasionally deal in emeralds and rubies.

"With respect to our exports, we have made but very slow advances. Besides, the commodities fit for our commercial intercouse with Persia are such as we are obliged to procure from foreigners, and consequently cannot be imputed in the balance of trade. The most considerable and beneficial export, for some time past, has been cochineal. In cloths, the exportation may amount to one hundred and fifty thousand rubles; in velvet, from fifteen to twenty thousand rubles; and the value of all the remaining articles together does not amount to forty thousand rubles. Perhaps the Russian leather, or Yukhten, may produce from ten to fifteen thousand rubles of this balance. Sugars of different kinds are exported to the value of twenty thousand rubles. The amount of brocades, camblets, taffetas, paper, small looking-glasses, and several articles of iron and copper, as well as spices exported from Astrakhan, is altogether less than that of the last-mentioned merchandize. Pig and bar iron would be a very lucrative article of commerce, especially as it is a native production; but Heraclius, the Tzar of Georgia, having in the year 1789 obtained permission for his Armenian factor Tarumof, to export, during four successive years, forty thousand pood of iron free from duty, the merchants on account of the high duty of sixty kopeeks a pood, were unable to trade in this commodity with any advantage. As, therefore, the balance of trade with Persia is against Russia, it is worthy of inquiry

in what manner our commercial intercourse could be rendered, if not profitable, at least less detrimental to the interests of the empire; for, in my opinion, we possess the means of effecting that desirable purpose. If the Russian merchant wishes to rival the other European merchants in Persia, whence they obtain the best silk, or to engross this trade by lower prices, that object can only be accomplished by a drawback on the duties paid in the sea-ports of the Baltic. Similar judicious measures are frequently and successfully adopted in England.

"It is, however, scarcely to be expected, that during the free trade, merchants, who consist of so many different nations, will co-operate to accomplish this patriotic purpose, and deal with integrity towards each other, as well as to the general interest of Russian commerce. They will appropriate the drawback to their own private interest, and be unconcerned whether this remission of duty may be of any future advantage. Hence it would be necessary to give this trade exclusively to a chartered company of merchants, possessing experience and integrity, and to be regulated by directors subject to the controul of the commercial college.

"I did not think," continues M. Pallas, "my time would be ill spent during my stay at Astrakhan, by inquiring into the means employed in the east for dying madder red; especially as I had an opportunity of obtaining accurate information on the subject by a friend, who had advanced money for the establishment of a work for dying cotton of that colour. I shall here communicate my remarks, which may serve to correct a former description, printed in the Journal of St. Petersburg, and the periodical work, called in German, '*Nordische Beyträge*,' or Northern Contributions. This account is the first that has appeared in print, relative to an art that has formerly been kept a great secret.

"A quantity of cotton yarn is usually prepared for dying on a Saturday, in the following manner: it is first soaked in the fat of fish, previously saturated with a solution of the salt of soda, called Kalakar; in this state it is left in a heap till the succeeding Monday, during which time it grows remarkably hot.

"On Monday the yarn is rinsed, dried, and again immersed in this fat emulsion; and on Tuesday that process is repeated a third time, after which it is hung up to dry; the four following days of the week it is repeatedly steeped in new lixivia of simple Kalakar.

"Having undergone these processes, the yarn receives the first olive colour from the leaves of the Belge, or the *Cotinus* of Linnæus. In order to dye ten pood of yarn, three pood and thirty pounds of the leaves of the Belge, that is, fifteen pounds of leaves to each pood of yarn, are boiled in large kettles containing from forty to forty-three Russian Vedros, or eimers, of water. This decoction is filtered through sieves, while the kettles are cleansed for the reception of the purified liquor, in which a pood of allum is dissolved. Into this liquid dye the yarn is dipt by skeins, in small cups or pots, then hung up to dry, afterwards washed, and again dried.

"The yarn being thus prepared, the workmen then proceed to give it a red dye: to every pood of yarn an equal quantity, or somewhat less, of ground madder, which has previously been mixed with half a Russian vedro, or about thirteen pints, English measure, of blood, is put into every kettle. After boiling this dye the yarn is immersed in the preparation, and suffered to boil up with the liquor.

"When thus perfectly dyed, it is dried, and afterwards placed in pots containing alkaline water, in which it is completely immersed and allowed to simmer, while the liquor, which boils over and runs off by a small gutter affixed to the edge of the vessel, is continually replaced by a fresh solution of the soda.

After the yarn has been thus boiled, again dried, and washed, this complicated operation is generally finished in three weeks. It is affirmed that the Turks conclude their process by again soaking the dyed yarn in oil, to give it a more beautiful colour and lustre, as well as with a view to increase its weight: in this state it is pressed, and allowed to dry; they commonly use the oil of olives, instead of the fat of fish; but in general every kind of oil or liquid fat, which forms a saponaceous mass with the solution of soda, is proper for that purpose.

"The price of dying materials always varies according to the state of the market, and other circumstances; and it requires a large capital to support such an establishment. Of the madder obtained from Persia, and the environs of the Terek, that with small roots is preferred; it is sold, according to its quality, from eleven to fourteen rubles the pood, and afterwards reduced to powder: the bruised leaves and stalks of the Belge, or *Cotinus*, are brought from Kislar, and cost from eighty to one hundred kopeeks, or one ruble the pood. Unless the cotton yarn be previously dyed with these leaves, or the galls which were formerly used, it will acquire only a pale, and not a durable red. Soda of a good quality also comes from Kislar, and varies in price from thirty to one hundred kopeeks a pood. The best sort, which is dry and hard as a stone, was at this time sold at only thirty kopeeks. On being dissolved, all the particles of carbon with which it is mixed are precipitated, and by skimming the solution becomes perfectly clarified; the sediment is thrown away as useless. A pood of soda is dissolved in a vat of forty vedros, or about one hundred and thirty English gallons.

"For every pood of cotton yarn the dyer is paid from twenty-five to thirty-six rubles, including materials and the price of dying; he returns from three to six pounds overplus to each pood, because the yarn

has acquired so much additional weight from the colour.

"To each pood of yarn are used four pounds of allum, fifteen pounds of *Cotinus* leaves, fifty-eight pounds of the fat of fish, one pood of soda, and one pood of madder. Two boilers for the decoction of the Belge leaves and madder, both heated by the same fire, and four large pans for the soda, are sufficient to dye five hundred pood of yarn in one year. It must, however, be remarked, that the dying process cannot be continued in winter, and it is likewise interrupted by rainy weather.

"The culture of the vine, introduced at Astrakhan in the reign of Peter the Great, is in a progressive state of improvement, though the climate and soil are rather unfavourable. The vine is at present not cultivated merely for the fresh grapes, but likewise for the production of wine. The grapes are packed with red millet in small casks, which are suspended by chains in wooden cases, and thus conveyed to the court and to the capitals, where they are sold to great advantage. The vineyards, formerly cultivated at the expence of the crown, have been sold by public auction; and hence, as well as by the important plantation of the late governor of Astrakhan, and afterwards senator, Nikita Afanassievitch Beketof, the cultivation of the vine has received new vigour.

"On the 21st of August, I accompanied the present governor, major general Skarshinsky, on a visit to the new establishment in the isle of Tsherepakha, which is inclosed by banks. In our excursion thither, we passed along the Kutum, an arm of the Volga, which branches from that river near Astrakhan, and is provided with a bridge. This isle, which belongs to M. De Beketof, is formed by the new Kutum, a small collateral arm called Tsherepakha, or the turtle, and the great Bolda, into which there is a conflux of the old and new Kutum. It con-

tains some elevated ridges, and a great part of it has been gained from the water by inclosure; there remains, however, a very large but shallow marsh, which is connected with the Bolda. The proprietor had an opportunity of raising these dikes at a very small expence, by employing the Turkish prisoners taken in the war before the last, and transported to the banks of the Volga. By such useful labour, the water has been drained from nearly eight hundred desættines of land; besides the extent of dry soil, which previously amounted to about seven hundred desættines.

"Two villages, Natshalovo, or Beketovka, and Tuma, together contain a population of about two hundred males, who are entirely employed and supported by the lord of the manor. Near Beketovka are the brick buildings belonging to the proprietor of that village, consisting of an elegant church, with the family vault on the highest hillock: and on the northern side of the rising ground is his dwelling-house, with a large central hall, illuminated by a highly suspended lantern. On the southern side, there is a wall that extend to the church, with two turrets, and shades the capacious and convenient vaulted cellars of the dwelling-house: there are at present in these cellars fourteen thousand vedros of wine, the produce of the governor's vineyards, ready for sale, and partly kept in uncommonly large casks. The oldest, which is preserved for the use of the proprietor's family, is said to be the produce of the year 1772, from the Hungarian vine, and resembles a good French wine. It is, however, easily perceptible that this wine is indebted for its preservation to a proportionate addition of brandy. Next to this, the wine made in 1774, of grapes without stones, called Kyshmish, deserves the preference. Of the wines intended for sale, the oldest were of the vintage of 1780. No wines are disposed of here, unless they be three years old, and those longest kept are the dearest; for instance, that of

1786 is sold at four rubles the Russian eimer, or vedro, that of 1784 resembles *Vin de Grave*, is made of Kyshmish, and sells at three rubles and a half; and the younger kinds are sold at two rubles and a half the eimer: there are annually pressed here from four to five thousand eimers of wine, and the oldest casks are always filled up from those succeeding in the order of time; the grapes are pressed in an appropriate wooden building.

"Immediately behind the church and dwelling-house, towards the west, there is a small vineyard and orchard, which contain vines for the use of the household, and are watered by a mill with several machines for raising the water above the level of the soil: there is also a circular windmill, with a horizontal wheel and sails, but which is not in use.

"The principal vineyards, viz. an old one, and another newly planted, are situated in a southern direction to the former, and in a parallel line from east to west, on two eminences exposed to the south. The more southern, and older vineyard, is thickly planted, and so abundantly productive of grapes, that it delights the eye of the beholder; some branches of which, with thick skins, measured almost three spans in length, and those called Kyshmish, two spans. This vineyard is provided with three mills for watering the ground, and the central mill is erected on a base of brickwork, for the purpose of raising the water to the highest parts. The more northern and younger vineyard is situated somewhat higher; it is embellished with a pleasure-house, and has four windmills for raising the water. The vines, though planted seven years ago, have not yet overspread the vineyard, in consequence of their being placed at so great a distance from each other. They produced very few grapes, and the foliage was parched by heat, except in one quarter, which, by way of experiment, had been plentifully manured in the present year. The injudicious practice of planting too thin, is generally

imitated by the new vine planters of Astrakhan; it is unquestionably less advantageous than the close method, by which the soil is soon overshaded, and consequently requires less watering. The old vineyard contains from eighty to ninety thousand square fathoms, but the new one only sixty thousand. The plants of the old vineyard are disposed in circular and semicircular walks and espaliers: those of the other are expanded in the form of a mushroom or umbrella. Every kind of grape which this country produces may be found here, but the most numerous are the Hungarian, those with a thin skin, and the different sorts of Kyshmish, which are reckoned the best, and are most easily pressed. The intermediate low ground was formerly planted partly with vines, and partly with other fruit-trees. But since the water, raised for fertilizing the soil of the vineyard, has been collected in ditches, and reconducted into this vale, it has become so much impregnated with saline particles from the more elevated parts, that all the trees have perished, and there now only remains the *Zygophyllum*, several species of the *Salsola*, some rushes in the low and marshy part, and the *Statice Scoparia*, of which brooms are manufactured in Astrakhan.

"Beside the vineyards, there are also established on this isle, a garden, and a mulberry plantation, by the leaves of which a number of silk-worms are nourished, so that from fourteen to twenty pounds of silk are annually produced.

"All these plantations are cultivated by the vassal boors, each of whom receives for his labour, twelve rubles and three bags, each containing forty pounds of flour, every year.

"There are besides three vine dressers appointed as overseers."

During M. Pallas's stay at Astrakhan, he attended with pleasure at the idolatrous worship of those Indian merchants of Multanistan, who reside together in the Indian Court, called Indeiskoi Dvor. Though

some account of these idolaters has already been given in a work entitled *Nordische Beyträge*, yet, (says he) I do not think it superfluous to relate what I remarked among them at this time.

"These Multanes," he continues, "whose country is now subject to Timur Shah of Avgan, and whose language bears the greatest analogy to that of the gypsies, perform an ablution in the Volga every evening, previous to the worship of their idols. As they have no appropriate place of devotion, they meet in the chamber of their priest, who is not a regular Bramin, but a Dervise. The pagoda, or altar, is suspended in a corner on the right, opposite the priest's couch. Every thing here, as well as in the chamber of the forty Indians, appeared in a more miserable state than formerly, since a part of this people have abjured the religion of their ancestors, and have been incorporated among the citizens of Astrakhan, with a view to defraud their mercantile correspondents in India.

"I was struck with the appearance of the dervise, whom I had formerly seen clothed in a robe and girdle perfectly white, which dress appears to be an exclusive privilege of the Bramins. But he now performed the religious ceremonies in a cloth vest buttoned up, and long white breeches partly covered with a redish garb. His head was not shorn like the other Indians, but he wore short hair, and had a round spot, stained with vermillion, above his nose. The other Indians, on the contrary, were shaved, except a tuft of hair on the crown of the head. They generally, after bathing, describe some Indian character with tumeric on the forehead.

"We were requested to pull off our shoes, or clean them, as the others did, before we ascended the elevated part of the chamber, which was appropriated to devotion. The dervise began the service with silent prayers and meditations. Some of the Indians then

placed melons and other fruits on the floor, beside the pagoda. The dervise placed himself before the shrine of the idols, which was illuminated by a row of candles in front. To the left of the priest, on a small table, there was a large double lamp filled with tallow, and kept burning night and day. The mirror suspended on the wall above the table was inverted. To the right, on the floor, there was a metal bason, with a salver which half covered it, and on the left were two cymbals of the janissaries, and two smaller musical cups, similar to those used by the Kalmuk priests. A small table was placed before the dervise, under the suspended pagoda, with a little censer, and a particular lamp with five wicks. The idolatrous worship commenced in a loud voice; an Indian pulled the string of the bells which hung at the side of the shrine, and two others took small cymbals in their hands. They all sung an harmonious litany, in unison to the tinkling of the bells and cymbals. This hymn was begun by the dervise himself, with a sacerdotal bell in his left hand, like that used by the Lama. In the first division of the hymn, addressed to the idols, the dervise took the censer, and throwing some gum copal into it, he offered the incense before the shrine, upwards, downwards, and in a circular direction; a ceremony intended to represent the element of air. After having performed this part of the service, he took a square folded piece of cloth, which lay before the idols, and moved it in various oscillations before them, as symbolical of the element of the earth. He next successively lighted the five wicks of the lamp, and during continued hymns moved it in different directions before the idols, as emblematical of the element of fire. Having finished this rite, he placed the lamp on a small salver, and it was then carried by a member of the congregation to all the worshippers present: each of whom, after having reverently held his hand over the five flames, touched his eyes

with his warmed fingers: this part of the ceremony being concluded, the priest received the lamp, and extinguished the five flames with its pedestal; but the wick with which he had lighted them, he threw into the large lamp.

"At length, the element of water was worshipped. For this purpose, pure water was kept ready in a large marine shell, which was placed on a brass vase supported by the right corner of the pagoda. The dervise took this shell, and, between the pauses of the song, he poured the water it contained with much dexterity from a considerable height into the half-covered cup on the floor; and, lastly, dipping his hand into this holy water, he besprinkled the whole congregation, who received this benediction very devoutly, and with folded hands.

"After the litany was finished, the dervise gave the cup with holy water to the person who chimed the bells, and sat down, together with the whole congregation, cross-legged, on the carpet; he then caused a spoonful of holy water to be poured into the palm of each person's hand, who religiously swallowed it, and moistened his head and eyes with his wet palm. The dervise afterwards took the remainder, with which he washed his head and eyes, and poured it into the vase that supported the shell before the idols. He then said a long prayer for the empress, the constituted authorities, and the people. After this ceremony, the Indians were presented with dried raisins without stones, or Kyshmish, on a plate; and after they had all risen, plates with sugar-candy and pistachio nuts were offered to the strangers. When the whole ceremony was concluded, we were permitted to approach and make drawings of the pagoda, without touching any part of it. At our request the priest himself uncovered part of the idols, which were dressed in sky-blue and pale rose-coloured silk cloaks, describing them to us by their names. In the back ground, elevated on a pedestal, in a direction

from right to left, we observed the following; Sagenat, Tsettergun, Letseman, Rama, Bahart, and Lekumi. The first five were adorned with high moveable bonnets; the last was a representation of a female, dressed in a kind of turban, with a ring in her nose. On a lower step, in the second row, on the right side, were Murli and Mrohor; they were decorated with high bonnets, but without silk garments, and held staves in their right hands, over their shoulders. In the midst, there was a figure called Ashtabudshi, with eight arms, and crowned like Cybele; the next was a figure called Saddasho, in a sitting posture, with a round bonnet, and Honuman, an idol resembling Apis, with a dog's head, and rings in his ears. Small idols and relics crowded together occupied the front part of the shrine. Before the figures that held staves in their hands, we observed two distinguished pictures of Vishnu and Brama, or as they pronounce it, Brmahah. Farther to the right there were two very prominent sitting idols, in the form of apes, which were likewise called Honuman, with long-pointed caps, like crowns. In front of these was the figure of a tiger, or lioness, cast in copper, like the idols, and called Ssurr-nur-seng. Lastly, towards the corner, we noticed three figures similar to the Duruma of the Mongolian Lamas, which appeared to represent Lingams, and were called Shadisham, that in the middle leaned on a square pedestal of yellow amber, in the form of an obtuse cone, studded with grains of rice: two other small columns rested on a base similar to a lamp, which represented the female parts of generation. In the middle was placed a small idol, with a very high bonnet, called Gupaledshi; at its right side there was a large black stone, and on the left, two smaller ones of the same colour, brought from the Ganges, and regarded by the Indians as sacred. These fossils were of the species called Shoss, Saugh, or Sankara, and appeared to be an impression either of a bivalve muscle, with

long protuberances, or of a particular species of sea-hog. I have never seen among petrifactions these stones with a figured elevation, by which the Indians endeavour to represent certain female parts, and raise the colour by yellow streaks of turmeric. Such stones are held in the greatest veneration among them. Behind the formest idol, there was a folded silk garment lying across. In the corner stood the figure of a saddled lion, called Nhandigana. There was besides an image at the head of the shrine, with its face turned towards the other idols: He appeared almost withered, had large ears, and was called Gori. The front space likewise contained the bell, or Ghenta, of the idolatrous priest, as well as his rosary and a sceptre, such as is peculiar to the Lama clergy. From these details, the great analogy between the idolatrous worship of the Lama of Tybet, and some ceremonies of the Indians, and even of the ancient Christian church will be evident."

On the 19th of August M. Pallas assisted at a very remarkable ceremony, which took place after the ordinary celebration of divine service, in the metropolitan church of the Armenians. The Suffragan, or Archimandrite, carried in a solemn manner the holy oil, or myron, which is only prepared every four or five years in the Araratian convent of Etsh Miadsin, and is afterwards distributed to all the churches of the Armenio-Nestorians. This oil was brought in large copper flasks, and slowly poured by the suffragan, with much attention and many pauses, into glass bottles, in order to exhibit it to the people. The ceremony lasted full two hours and a half, during which were said a long litany and prayers for all ranks of people; the whole concluded with the Lord's Supper, and a general benediction, which was given by the Archimandite alone. He obtained permission to examine the oil; it had acquired a green colour from the copper vessel, and a rancid smell. It tasted like oil of olives, partaking of the odour

of mastich. He was told that it was prepared in forty days, from flowers and plants of forty different sorts, which were collected with great secrecy on the mountains of Anadolia and the Caucasus.

On the 20th of August M. Akhmatof, captain of the port of Astrakhan, granted him a barge, in order to send a party to the mouth of the Volga; a distance from sixty to eighty versts, where, according to the information he had obtained from the late Dr. Lerch, the *Nymphæa Nelumbo* grew in abundance, so that he procured a great number of flowers and fruits of this plant, in different gradations of growth; some of which had nearly attained perfect maturity. The fruits, which the Russians call sea-nuts, or Morskye Orekhi, the inhabitants of Tybet, Badma, the Persians, Dariopacta, and the Indians, Pabin, or Lilifar, are searched for, and eaten with avidity, by the last-mentioned nation, who regard them as sacred. According to their mythology, and that of Tybet, the perfect divinities are regenerated in the richly scented flowers of this plant, which serve them for a throne. Indeed these flowers have an agreeable flavour, and the distilled water which the apothecary of this city, the assessor Zettler, had the politeness to prepare for me, contains an agreeable and permanent taste of fine Ambra, and, when used as a lotion, imparts such a softness and delicacy to the skin of the face and hands, that it deserves to be introduced as an innocent cosmetic into all the apothecaries' shops, especially as the flowers may be collected throughout the summer, in the inlets of the Volga and Bolda. The leaves of this plant are completely free from zoophytes, and other aquatic insects. The seminal vessels are more conspicuous, and the germ more magnified in the seed of the *Nymphæa Nelumbo*, than in any other plant. When the nuts are inclosed in a lump of clay, and immersed under water, they readily germinate, particularly if a slight incision has been previously made in the shell.

## CHAP. III.

*Journey from Astrakhan to the Lines of Caucasus,*

As the autumn approached, Dr. Pallas was desirous to obtain some knowledge of Mount Caucasus, and consequently hastened his departure from Astrakhan.

On the 26th of August, in the afternoon, he directed his travelling carriages to be ferried to the western bank of the Volga; and on the evening of the same day, the captain of this port, Brigadier Akhmatof, ordered one of the admiralty barges to conduct him and his family to that place, where they passed the night in a very convenient ferry-house, built for the accommodation of travellers.

On the 27th in the morning, they began their journey on the road to Kislar. But as all the branches of the Volga, on the steppe, were swelled by the long-continued S. E. sea-winds, and as the fords were too deep, they were obliged to make a circuit of about twenty versts, by proceeding in a western direction along the Beshkoll. Meantime they dispatched an express on horseback, by the usual road, to the post of Glubokinskoi, distant only twelve versts, that he might send the horses to meet us on our circuitous road, which was ten versts from that station. Glubokinskoi is a remarkable place; it contains a number of inhabitants; and the Bolshaya Solanka is a noted quay to which flat-bottomed vessels are sent to be freighted with salt.

In the vicinity of the branches of the Volga, many saline lakes and pools of different extent are scattered, which in summer produce incrustations of salt, that are collected from the most considerable of their number for the imperial magazines, and transported by water.

On the 28th in the morning, they first passed a small salt-pit, and afterwards a larger winding lake called Kartusanskoi, which had a considerable incrustation of salt. In the intersections formed by the rain along its steep bank, they noticed the solitary *Salicornia foliata*, and a remarkable species of creeping grass, which in its size and foliage resembled the *Agrostis pungens*, but produced a very different ear, with simple filaments and double anthers; and on the lowest bank, marine plants similar to those formerly mentioned.

The banks of these rushey marshes abound with various species of wild fowl; and on the miry bank they observed the *Hippuris*, and in the water, the *Najas maritima*, and *Marsilea natans* growing in abundance.

The surface of all the higher part of the steppe, over which they had travelled, was a mixture of clay and sand; but the banks confining the branches of waters and circular pits, were covered with grass.

After leaving this saline tract, and travelling over the heights, they arrived at a large branch of water called Kara-baitall; which terminating in a bay bordered by an extensive valley, skirted, as it were, by a moving sea of sand, presented a prospect such as Dr. Pallas had never before witnessed among sand-banks. The water in this gulph was of a greenish colour, like that of the Caspian sea.

Somewhat farther on, near three inlets of water, called Bassis, which unite towards the mouth of the Volga, and form the Podresnaya-retshka, our party observed several shallow salt-lakes of a circular form. Six of these, on account of their rich impregnation with that substance, are appropriated to the crown, and called the lakes of Bassinski, but the others have no distinct names.

On the 29th of August, about a quarter of a verst from the post-house, and at the extremity of the

Shedeli, they passed a village consisting of fifty habitations belonging to the Tartars of Kasan.

From this place we proceeded over high sand-banks, and a variety of hills and vallies, which mostly extended in a north-west direction.

At length, about twenty versts from the Caspian Sea, after descending the last-mentioned sandy ridge behind the Shurguttu, they arrived at a low and uniform plain, which extended farther than the eye could reach; though it was intersected with several small lakes, and streamlets. This plain, in consequence of the inundation from the sea, has been universally impregnated with salt, and produces various marine plants. Among these they remarked the *Salsola soda* in abundance, a plant which is not very common in other tracts. The exuberant vegetation of these plants has in many places produced a superficial stratum of black mould.

During this day's journey they met several caravans of the Tartar Arbes, or Araba, signifying two wheeled carts, which were partly loaded with madder, and partly with the leaves of the *Cotinus*, or Yaprak. These two commodities are used at Astrakhan for dyeing cotton, and manufacturing Morocco leather. Some of the vehicles also contained crude soda, Kalakar.

They passed the night at Ulagann-Ternik, where they were grearly annoyed by the midges, which, even at this time, infested these regions in numerous swarms. Very early on the 30th of August, an armed troop of Turcomans came to escort them, and a relay of horses had been ordered at the next station, for the continuance of their journey. Near the most southern large inlet of the vast sea-valley of Ulagan-Ternik, where a post-station is established at twenty two versts and a half distance, they found a felt tent pitched for our accommodation by the Trukhmenes, near which we were received by the chiefs and elders of that people.—The guides who

A TURCOMAN.

had accompanied them from Astrakhan, left them at this place.—As the vicinity of the Terek has been described by the naturalists who formerly travelled in that country, Dr. Pallas resolved not to continue his route by the road Kislar, but rather across the desart to the river Kuma. He wished to visit this river, especially as its banks had recently been peopled, and had not been described by any traveller. Thus he expected to make a more instructive, and safer tour by the fortress of Georgiefsk, which is the principal place on the Lines of the Caucasus.

"The Trukhmenes or Turcomans," says Dr. Pallas, "with whom I was now obliged to continue my journey, are a wealthy, well formed, lively people, and more attached to ornamental dress than any other tribe of the steppes. They are by no means to be compared with their brethren who inhabit the eastern shore of the Caspian Sea. These people are independant, but poor and uncivilized, as I have myself frequently observed, while the other Trukhmenes have, under their present political constitution, improved much in comeliness and gaiety. Before the Kalmuks took possession of the steppe of the Volga, they subjected these very people, made them tributary, and compelled them to migrate over the Yaik. Here they became subject to the horde of the Khans of Torgot, who, however, granted them the free exercise of the Mahometan religion. On the retreat of this horde from the steppe, the Turcomans rose in arms, refused to accompany their fugitive oppressors, and became vassals to Russia. They have since been removed to the steppe of Kislar, where they are permitted to lead a wandering life with their flocks and herds, between the Kuma and the Terek. They have a great number of camels, black cattle, sheep, and horses. Their horses resemble the English breed, and are high, swift, strong, and durable; they have hard hoofs, and are upon the whole a much superior breed to the lean and narrow-chested horses of the

Kalmuks. They dwell in felt tents exactly similar to those of the Kalmuks; and their only fuel is dried cow-dung and rushes. Their principal food is flesh, sour milk, a small quantity of groats, and meal, which they purchase from the Russians; but their favourite food is horse-flesh. These people appear to lead a very tranquil life; being obliged to perform no other services, than to furnish post-horses, aud do military duty. They are governed by a particular magistrate called Pristaf, who has a very good place, lives among them with several interpreters, watches over their conduct, and determines all their disputes, to which they seem much inclined. It has often been suspected that they intended to repass the Volga and Yaik, in order to rejoin their brethren; but it is highly improbable that such an emigration will be attempted, especially in their present state of prosperity, and as the more aged among them are gradually dropping off. The only inconvenience they are subject to, is the want of fresh water, particularly in summer and autumn. A military rank has been conferred on several of their elders or chiefs, and all the rich persons among them appear to be equally desirous to obtain this distinction. The number of their tents amounts to upwards of one thousand. They are a lively, polite, officious, and communicative people, but extremely indolent; are very expert in archery, and in their excursions on horseback are usually armed with ornamented bows and quivers. They have rich belts and sabres, and are fond of crimson-coloured dresses, adorned with lace; but this love of finery is not so common among any other tribe inhabiting the steppes: their caps are generally round, and trimmed with black lamb-skins, similar to those of the Poles. They shave their heads quite bare, and many of them also shave their whiskers; but the old men allow their beard to grow under the chin. The dress of their women and girls exactly resembles that of the Nagays; and the married women also wear a

ring in one of the nostrils, as is customary among the female Tartars at Astrakhan."

On the 31st of August, our travellers continued their journey in a S. W. direction. They soon descended from the high sand-hills, and arrived at salt-pits of different dimensions, with which the whole plain was intersected, and, as it were, excavated. They were steep along the verge, in consequence of the motion of the water, but became progressively shallow, dry, and destitute of plants.

They stopped to dine at the entrance of a narrow tract of country, called Kamyshburun, which was overgrown with sedge, and where they found the *Cyperus esculentus*, growing in abundance, and in the afternoon they continued their journey with fresh horses which had been prepared for them at this place; and keeping the sedgy tract in view on their left, proceeded mostly in a west, and W. N. W. direction; and at length, towards evening, after travelling about fifteen versts, arrived in the vicinity of the lake Kasak Kul, where they passed the night.

On the 1st of September they observed, in the saline plains around the lake Kasak, besides the usual marine plants, the *Euphorbia Chamæsyce* in abundance, and a small quantity of wild purslain on several spots. The *Frankenia hirsuta* was still in its most beautiful bloom: early the next morning they continued their journey; and instead of the bare steppe they had hitherto traversed, they found one tolerably rich in plants, among which were such as delight in a saline soil; for instance, tamarisks, the *Salsola ericoides* and *sedoides*, *Polycnemum dichotomum*, and *oppositifolium*, and particularly, numerous shrubs of liquorice with flat pods. The low country over which they travelled to the village of Ternovka, or Talovye Terny, was covered with beautiful bushes of tamarisks, and along the banks of the river were some coppices of willows and poplars: the former they

first observed, on advancing towards the source of the Kuma.

Terny, we are informed, is one of the latest Russian colonies; its inhabitants were transplaced from different provinces into this desert though fertile region. The people, indeed, suffered many hardships in the beginning of their establishment; but the uncommon fruitfulness of the soil affords them a more promising prospect. This village is surrounded by a collateral branch of the Kuma, which is partly dry. In the vicinity of this place there is a bridge over the river, which connects the Tomski road leading from Tzaritzin to Mosdok.

At the distance of seven versts from the large village Malye Madshary, or Kavkaskoi Usvat, which belongs to a nobleman, they observed in a most agreeable situation, on the banks of the Kuma, a farm established for rearing cattle. The bank on this side exhibited several chasms formed by the torrents of rain-water; and the wood of the low country, which had grown to a good size, presented a charming landscape in the open plain. They now approached the fire which they had discovered on the steppe the preceding evening, or rather, the continued hurricane from the N. W. impelled it directly towards them, close to the bank of the river and the collateral highway. They were therefore obliged, as the most prudent step in such an exigence, to penetrate upwards of a verst through the thick suffocating smoke, mingled with ashes driven by the wind, and also through the almost insupportable heat of the flame: thus they escaped at full gallop, though not without danger. Their Turcoman guides, who were well mounted, gave them the most effectual assistance, by driving their horses, and drawing the carriages with ropes. By these means, towards the evening they reached the village of Usvat, which lay beyond the reach of the fire. "We were much gratified," Dr. Pallas

observes, "with our hospitable reception in the commodious and well-built manor-house, which afforded us an asylum against the dreadful tempest. The convenience of this residence; the examination of the much diversified country; the various repairs of our carriages; and the expected return of an express whom I had dispatched to Naur, induced us to stay here several days."

The Kuma in this place flows in romantic meanders, which, sometimes on the one side, and sometimes on the other, form considerable promontories, called Kuti. Some of these are covered with rushes, while others consist of dry pasturage, and meadows rich in herbage, with several thickets of blackthorn and tamarisks. Along the river there are several high forests, and many coppices among the trees, of which the wild apple, the wild poplar, and thorny pear-tree, are most conspicuous. Wild vines were found intertwined in different places; they produced black grapes, about the size of the common pea, which were very delicious, and contained proportionally large stones.

Beyond the Kuma the country is diversified with small hills, and rises with a steep ascent from the adjacent bank: this tract is almost as high as that of the Sarpa; it consists of a loamy soil, without any strata of stone, and its surface is a blackish earth covered with verdure.

In this country there is abundance of game. The majestic stag descends from the mountains, and the Saiga comes hither from the steppe; there is also a great variety of hares and other small quadrupeds. The *Mus Jaculus* formerly infested this place in such numbers, that they devoured the unripe corn. In autumn, especially, this country abounds with wild-fowl. Bustards, as well as other birds of passage, come hither in numerous flights, and remain till the approach of winter. The noblest of the feathered tribe here is the pheasant; this delicate bird appears

first in the forests adjacent to the Kuma, and afterwards more numerously in the thickets and sedges of the low country. The places overspread with reeds adjacent to the Terek and the Kuban, along the shores of the Caspian sea, and the whole tract of the Caucasus, may be said to be the native country of the pheasant.

The inlets of the river contain shads, small carp, pike, and other smaller fish of different kinds: in some lakes of the low country there are small tench, and carousses, which are beautifully speckled, and very delicious.

Malye Madshary, or as it has since been called, Kavkaskoi Usvat, is next to Volodimerovka, the first village established on the banks of the Kuma, in this beautiful and fertile country, which only twelve years ago was a desert. The Malo-Russians, and other wandering hordes, laid the first foundation of a settlement, and submitted to be enrolled as vassals. Attracted by the beauty of the place, and the abundance of good arable land and pasturage, several individuals, as well married as single, have gradually settled here; hence the village is now increased to one hundred and sixty farm-houses, and inhabited by six hundred persons, from the age of fifteen to sixty years, who are subject to a poll-tax. Exclusive of these, there are about two hundred unmarried men, who have received permission to work at the fisheries. This village belongs to the Princess Vasemskoi, who at the request of the peasants, has appointed a priest of Georgian descent, born at Kislar. She has also caused a small church to be erected of wood, and the villagers, in consequence of their agreeable situation, in a fertile country, are now become peaceable vassals. The village is built in regular streets; the cottages are indeed small, but well constructed of wood, plastered over with clay. A good manor-house, with a garden, affords a convenient resting-place to the traveller, who visits this desert country.

At the western part of the village, on a declining promontory, round which the Kuma winds in a considerable angle, the excellent economist of this place, M. Tomashefsky, has cleared the ground of brushwood and sedge, and has begun to plant a vineyard, orchard, and mulberry-garden, which promise to be very beneficial. This ingenious gentleman is a native of Poland, and has had the superintendance of the village for the last six years.

M. Tomashefsky has also made an attempt to cultivate silk. It was intended to devote a particular part of the village to such an establishment for the emigrants from Georgia, who might considerably increase this branch of economy. There could be as much silk produced along the borders of the Terek, the Kuma, and in Taurida, as would supply Russia with a sufficiency for home consumption. It would, however, be absolutely necessary to employ colonists from Asia, Greece, Dalmatia, and Italy; as the Russians can by no means be induced to engage in this profitable branch of industry. All the silk which is now produced on the banks of the Terek, and in Astrakhan, is cultivated by Georgians, Armenians, and a few Kozaks, who have in this respect overcome the popular prejudice.

The principal employment of the Russian peasant, in this country, is agriculture; which is facilitated by the uncommon fertility of the soil. An uncultivated field, covered with a thick turf, is ploughed in spring, sown with millet, and harrowed. In the second year, this ground is again broken up with a heavy rake, called Ralo, which is drawn by oxen, and afterwards sown with wheat. The third year it is sown with rye or barley, which is harrowed in by the Ralo, and the fourth year it is deeply ploughed for winter wheat. After thi succession of crops, the soil is allowed to lie f low for four years, and upwards, till the herb that overspreads its surface affords sufficient

getable mould. Wheat yields twelve-fold and upwards, and rye eight-fold on this argillaceous, black soil, which is intermixed with marl. The winter wheat sown in November ripens towards Whitsuntide, and the summer wheat, which is put into the ground as early as February, is ripe by the end of June, or beginning of July. An experiment has been made to cultivate plain barley, and English as well as black oats. The ripe grain is trodden out in the open fields by horses hired of the Tartars, and the straw remains in heaps till the next conflagration of the steppe.

On the 4th of September, in the afternoon, our travellers left Usvat, and continued their journey. The steppe perceptibly rises towards the Sukhaya, or dry Bibala, pronounced by the Russians, Buivalla. This saline ditch was at present in a dry state; it extends ten versts from the steppe, and carries off the snow-water in spring. Beyond the Kuma, the high country was uniformly more elevated than the steppe on this side of the river: the country was intersected by trenches formed by the rain-water, and the steppe gradually declined towards the meadows.

Pokoinoi is a large parochial village, which has been peopled by Russian colonists from several parts of the empire: their original number amounted to 1100 males, but it is now reduced to three hundred and sixty-one. Near Pokoinoi, on the river Kuma, there is a wretched floating mill built on hollow beams, and belonging to a company of five peasants: there is also a bridge equally indifferent. In the low bushy country, on the opposite side of the river, we saw several wild vines with ripe grapes, the water elder, and great numbers of the *Dypsacus sylvestris*, but which were now withered.

Leaving Privolnœ on the 5th of September, they soon arrived at an extensive low country, covered with reeds, but now in a dry state. It is called Mokraya, or the wet Byvalla, and beyond the road it

forms a marshy lake, along the right bank of which there are several extensive spots covered with a white saline efflorescence. The shores of this extensive lake are variegated with sedgy marshes, numerous meadows, and arable land of great fertility.

They travelled three versts and a half over a valley richly wooded and adorned with numerous vines; and ascended the high steppe, which runs in an obtuse angle between the low tracts of the Byvalla and Kuma. Here the antique Tartar buildings that still remain, present themselves to the eye, and are known by the names of Bolshye or Verknie, the greater or upper Madshary.

In the year 1780, the number of these buildings, part of which were standing entire, and others fallen to ruin, amounted to thirty-two; and they learned that six edifices similar to towers were formerly to be seen in this place. Since villages and forts have been established in this neighbourhood, the excellent bricks of those buildings have been removed, insomuch that scarcely a trace of them remains.

September 5th. Eight versts farther, between the village Privolnœ and Frolof-Kaut, or Nino, the latter of which is built in another angle formed by the Kuma, the steppe rises into a bank, which in a striking manner exhibits traces of the high shore of the ancient sea. This elevated ground forms the bank of the river, and is upwards of two fathoms above its current: the *Colchicum*, which Dr. Pallas found growing throughout the high steppe, was not to be seen on this bank. From Madshary they first descried the snowy mountains of the Caucasus. During the whole of this day's journey they appeared particularly distinct to them, on account of the serenity of the air, and exhibited in their train a most magnificent spectacle. Besides the lofty and colossal Elburus,* which towered above all the others, and, as it

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* Our traveller is not certain what nation has given this mountain the name of Elbrus, or Elburus, which perhaps is not inferior to

were, guarded the whole chain on its western extremity, there were four principal groups crowned with snow, which were particularly conspicuous by their irregular summits. The black mountains, or, as they are usually called here, Tshernye Gory, appeared at this distance like a regular wall, which connected the snowy mountains that rose above it, while it formed their basis. The height of these black mountains is apparently equal to that of the Beshtau, though the latter is one hundred and fifty versts distant from the former; and that part of the Elburus which is covered with snow, appears to be above double the height of the Beshtau, which, however, is much nearer the place whence our travellers viewed those vast piles. The other groupes of these snowy mountains appear to the eye one third lower than the Elburus: the most conspicuous are the broken mounts near the rise of the Aredon, and the summits of Kasibek beyond the source of the Terec. The usual road to Georgia passes near the last-mentioned river.

The distance from Privolnœ to Novo-Grigoriefskoi, or Feoderovka, is fifteen versts: the latter is a large parochial village, chiefly inhabited by Malo-Russians. Beyond this village they crossed the small rivulet Karamayk, which runs between steep banks, stratified with clay and mould. At this place, the base of the mountains attracts the attention of the observer, while its borders gradually rise as they extend along the banks of the Karamyk. They crossed the Kuma, by a miserable bridge. The river is but a small stream at this place; and it winds with a serpentine course through an extensive and woody valley, in the lower part of which the Podkuma, with a stronger

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*Mont Blanc.* The Circassians call it Oshha Makhua, or the happy mount; and the Akases, Orfi Ipgug. They consider it as the residence of the king of the hopgoblins, whom they call Dshin-Padishah. In the vicissitudes of an unfortunate war, this mountain is an asylum to those nations.

current of water, joins the former in the vicinity of the above mentioned Podgornœ.

At this place the upper bank of the Kuma is four fathoms high, and consists of a sandy marl, below which, in the bed of the river, we discovered a laminated grey schistus of sand: this was the first layer we observed at the northern declivity of the Caucasus, the strata of which incline from N. W. to S. E. into a level plain.

The low country abounded with a greater variety of wood than they had before observed. The *Acer campestre*, wild pear, and cherry-trees of Mahaleb, a species of small acid plumbs, called Alitsha, the *Ligustrum*, *Evonymus grandis*, *Physalis Alkekengi* and *Senecio Doria* grew here in abundance: there were also numbers of pheasants, hares, and roebucks.

In the evening of this day, they crossed the Kuma, in the Circassian language called Gum-Ysh, and after travelling five versts through a bushy valley, arrived at the fortress of Georgiefsk, which has since been made the chief seat of the government. The garrison of this ill-built place includes the major part of its inhabitants; and it was at this time the residence of the governor and commandant general of the army of the Caucasus. The happiness Dr. Pallas experienced in becoming acquainted with the general of infantry Ivan Vassilievitsh Gudovitsh, a man equally estimable for his military talents, politeness, knowledge, and affability, made him the more regret that he had arrived in this remarkable region at so late a season of the year.

## CHAP. IV.

### *Observations made during a Journey along the Caucasus.*

Georgiefsk is situated near the steep verge of a woody valley of the Podkuma, or, as the Circassians commonly call it, the Gum. The perpendicular height of this steep country is eleven fathoms. The fortifications on the land side consist of three whole and a semi redoubt, while on the side towards the shore, it is defended by a parapet and batteries. It has a church; but, except the residence of the governor, there is scarcely a decent and tenantable habitation. Happily for the inhabitants, the winter is as mild here as in the mountains of Crimea; an advantage which this place enjoys from its situation in the angle of the stratified high mountains that extend towards Severnoi, and protect Georgiefsk against the north wind. Notwithstanding this protection, the turbid waters of the Podkuma, the sudden vicissitudes of heat and cold, especially the bleak night-winds from the lofty mountains, the want of precaution in the Russian soldier to preserve himself from those nocturnal blasts, and the frequent exhalations and fogs which arise from the moist and low country, all contribute to render this place extremely unwholesome; so that intermittent and bilious fevers are endemic and very obstinate.

On the day when our travellers arrived at Georgiefsk, the ridge of the black mountain along the Caucasus was covered with new fallen snow, which, however, melted in a few days. Some snow fell at the same time on the mountains of Taurida, which also soon disappeared. From Georgiefsk they had a magnificent view of the Caucasian mountains, in their whole extent from the Caspian to the Black Sea.

Cooper sculp.

VIEW OF PART OF MOUNT CAUCASUS & SUBURB OF GEORGIEFSK.

The country in the environs of Georgiefsk consists of arable land of an excellent quality, meadows, pastures, fire-wood, and plenty of game: the whole tract from this place to the mountains, bounded by the banks of the Kuban and the Kalaus, has every requisite for the subsistence of a considerable population. This country, particularly towards the mountains, abounds with deer, roebucks, foxes, and wild cats, which resemble the domestic kind, but are much larger, and of two colours, reddish, and grey with dark streaks. Besides these there are a small species of wolves, a few jackalls, hares, mountain mice, and the *Spalax Typhle*, or large blind mole. Of wild-fowl, particularly in autumn, large and small bustards, partridges, and pheasants, are common here.

From Georgiefsk they proceeded over a rising fertile plain covered with excellent grass, and continued their journey along the banks of the rapid Podkuma that flowed with an undulating current down to the left. About half way on the road they found a picquet of Kozaks; and gradually turning in a S. W. direction, reached a rising plain which was thinly though uniformly covered with wood and spreading plants, such as indicated a more mountainous country and a colder climate.

About two o'clock in the afternoon, our travellers reached the fortress of Constantinogarsk, about forty versts distant from Georgiefsk, and found in it a garrison consisting of a battalion of chasseurs, and a troop of dragoons.

In this place they met with a very hospitable reception, in consequence of orders given by the commanding general; and the same afternoon made an excursion in a coach to the sulphureous bath, five versts distant to the N. E. of the fort. As they proposed to proceed on the following day to the acidulated springs, a strong detachment of chasseurs and dragoons was sent before to take post at that place.

Early on the 10th they set out for the mineral spring, escorted by a detachment of dragoons of the regiment of Astrakhan, and a troop of Kozaks; and after examining these springs returned, on the afternoon of the 11th, to Constantinogorsk, where the lieutenant-colonel and commandant of the place, Michael Michaelovitsh Verovkin, received us with every mark of politeness.

On the 14th of September Dr. Pallas returned to Georgiefsk. An attempt was at this time making to induce the Circassian princes voluntarily to appoint regular judges, for settling their controversies, and terminating their continual feuds.

The tribunals were to hold their sittings near the banks of the Baksan, where a camp was pitched on the occasion. As the ceremony of their installation was likely to be attended with tumult and riot, especially among so disorderly a people, Dr. Pallas was induced to make an excursion to the mountains as far as the encampment of the Russian troops: on this short journey he was accompanied by the polite and cheerful Mufti.

After passing the small rivulet Baksan-ysh, at a distance of nearly ten versts, over a gently rising and mostly level steppe, they arrived at the camp near the river Baksan, to which place their journey was directed. Soon after crossing the Malk, they had a view of the snowy mountains, and saw them progressively more distinct. Near the camp itself, which was sixty versts from Georgiefsk, they appeared, says Dr. Pallas, very near to our station. The Elburus, the distance of which is here computed to be thirty or forty versts, or according to others it is reckoned eleven hours travelling on horseback, consequently about fifty-five versts,* was situated a little to the right, the snowy mounts of Tshegem and Baksan, di-

* It is said that this mount is equally distant from the Beshtau.

rectly opposite to our view towards the south, and the others in a line extending to the south-east. Before we reached the camp, we observed, in a lateral direction on the plain, two solid rocks of granite, one of which, on examining it more closely, I found to be upwards of twelve cubit fathoms projecting above ground, and forming an obtuse irregular pyramid. On each of these rocks grew the lichen; consequently they could not be that species of granite which is decomposed in the open air.

The whole of this plain where the encampment stood was covered with fine verdure; its bed consisted partly of pebbles and partly of solid granite, which rises above the ground, and exhibits in many places on the surface a fine white sand, produced by the decomposed granite, and mixed with a great proportion of miraceous particles. The plain, which extends a great distance to the north, becomes narrower towards the mountains in the vicinity of the Baksan, where it is confined between level eminences on the left, and a chain of tolerably high mountains on the right of the river; so that the Baksan at length continues its course between high banks, with a violent noise, over a bed of large and small pebbles: during the floods of spring, the rapidity of this river is almost irresistible, insomuch that it can only be provided with temporary bridges. The mountains on the opposite side progressively rise as they approach the river, and at length form a steep rocky wall, which terminates in a lofty angle called Kisburun, or the maiden peak, the height of which must be at least forty fathoms. These precipitate walls contain lenticular white concretions of lime-stone, which are deposited in a whitish calcareous matter intermingled with sand. The left bank, on the contrary, to the height of seven or eight fathoms above the river, consists entirely of different pebbles, chiefly of a whitish granite and porphyry, among which were large and small lumps of granite, in so decomposed a state,

that they crumbled to pieces on the slightest touch. All these irregular masses are accumlated and adjusted to each other, without adhering by any cement, and have an incumbent stratum of clay nearly two fathoms thick, and a black vegetable soil. The bed of the Baksan, for the most part, consists of similar pebbles: on its right bank only we met with limestones. The *Galega officinarum* grows here near the bank, rather of a dwarfish size. On the projecting banks of the Baksan we found numerous bushes of the *Hippophaë rhamnoides*. Towards the source of this river are several Circassian villages: we took notice of a much greater number now in a desolated state, and overgrown with luxuriant nettles, wild hemp, burdock, the *Onopordum*, *Echinops*, *Rubus cæsius*, wormwood, and mugwort. The hemp of these regions, like that of Boulogne and China, uniformly produced variegated seeds, and frequently grew to the height of ten feet, covered with a very firm bark, of which the Circassian women make thread and strings.

On arriving at the camp, we were received in the most friendly and polite manner by major-general Savelief, and passed two very pleasant days there, though the coldness of the nights already began to be sensibly felt. On the 21st of September we returned to Georgiefsk, as the advanced season rendered it necessary for us to accelerate our journey to Taurida.

## CHAP. V.

*An Account of the Nations inhabiting the Caucasus.*

During his short residence near the mountains, Dr. Pallas had an opportunity of collecting a variety of information relative to the inhabitants of the Caucasus. Much has already been said of the numerous

nations speaking different languages, and residing within the precincts of these mountains. In this place, however, I propose, says Dr. Pallas, to notice only those nations which inhabit the northern parts of the Caucasus, because they are more intimately connected with Russia, and have at different periods in a great measure acknowledged its sovereignty.

The following tribes inhabit the country situated towards the west of the Black Sea, beginning with the source of the river Kuban, which rises from the before-mentioned Elburus, the highest mount of the whole Caucasus.

I. The small Abasa, or Altikesek, signifying the six tribes, namely,

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|---|---|
| 1. Shantemir. | 4. Lou. |
| 2. Klitsh. | 5. Bibert. |
| 3. Kesha. | 6. Dudaruk. |

The people of this small Abasa, or Altikesek Abasa, inhabit a country between the rivulet Maraukh and the river Podkuma: they consequently occupy part of the Turkish and part of the Russian frontiers. Not submitting to the government of princes, but being ruled by the elders of tribes, they consider the Kabardines as subjects. These, on the contrary, striving for independence, have, on account of such dissentions at various times, more or less adhered to the Russian superiority; a great proportion of this high-spirited people have maintained their liberty, by resorting to the narrow defiles of the mountains beyond the Kuban. The following tribes have lately acknowledged the sovereignty of Russia, and are at present ruled by the commandant of Constantinogorsk.

1. Lou, or the Lovova family, consisting of fifteen hundred persons.

2. Bibert, or the Biberdieva family, amounting to sixteen hundred persons.

3. Klitsh, or the Klitsheva family, of six hundred persons.

4. Shantemir, or the Shantemirova family, comprising seventeen hundred persons.

These families inhabit the rising country situated in the vicinity of the rivers Kuma and Podkuma, and live scattered in small villages. The Abassines were Christians, but their nobles now profess the Mahometan religion. In their manners, dress, and mode of living, they resemble the Circassians; and there is likewise some similarity between the languages of the two nations.

II. The great Abassa includes the following principal tribes:

1. The Beshilbai, who, in the woody promontory, inhabit the banks of the rivulets Kepir and Tzikh, which, after uniting near the stratified mountains, fall into the great Selentshuk by intersecting its left bank. They farther dwell in the black mountains,* near the source of the Urup, and partly also on the banks of the great and little Tegen, which rise among the lofty mountains, and fall into the Urup, or Uarp, on its left bank.

These obstinate and rebellious people pay little respect to their princes, and submit to no authority; they could not even be subdued by the Russian troops sent against them. Their character and mode of living do not differ from those of the other Abassines. Their villages are either in woody regions, or in defiles of difficult access. Hence, as they live in woods and mountains, agriculture is much neglected; but they rear goats and sheep, and also pay great attention to the cultivation of bees. From their country we obtain that famous, intoxicating, or what is usually called maddening honey, which the bees collect from the blossoms of the *Rhododendron* and the

* By the black mountains is usually understood that part of the lofty mountainous tract, which during summer is not covered with snow, and consists chiefly of schistus.

*Azalea pontica*. The tribe of Beshilbai lead a poorer life than any of their neighbours, and are great robbers.

2. The Barakai, another tribe of the Abassines, inhabit the country situate between the Psinen and the little Laba, a short distance above the point where the last-mentioned rivulet falls into the great Laba through its right bank.

3. The Tubi and Ubukh, who dwell in the mountains above the Shaukesha, and spread towards the west.

4. The Shapsikh inhabit the country bordering on the Black Sea, and prefer the woody mountains of the western tract on the rivulets Antihir, Bugundur, Apirt, Of, Tshebik, Satasa, and Ships; on the banks of the two first-mentioned are the villages called Abat, which belong to a nobleman of that name. Most of the Shapsikh live dispersed in the fields, and are divided into separate families; there are also some villages on the banks of the Satasa and Tshebik. The Abassines do not employ themselves much in agriculture or the rearing of cattle, but live chiefly by depredations. They have no princes among them, and he whose family is the most numerous, or who shews the greatest bravery in piratical excursions, is considered as their chief magistrate. Their lawless habits of plundering travellers are extremely harassing to the Turks, inasmuch as they extend their incursions to the vicinity of Anape.

5. The Natukash, or rather Natkhu-Kaïtshians, are another tribe of the Abassines, who inhabit the extremity of the black mountains, which, above Anape, partly border on the Black Sea, and a branch of which extends, in a northern direction, as far as the Kuban.

III. The warlike nation of the Circassians inhabit principally the promontory of the Caucasus, and extend themselves to the adjacent beautiful plain, from

which they have expelled the ancient inhabitants, and subjected the greater number to their dominion.

The branch of the nation most interesting to the historical inquirer, is usually called the great and little Kabarda; because they inhabit the frontiers of the Caucasus, and have, since the military cordon has been stationed on these mountains, alternately maintained a friendly understanding, and carried on bloody wars with Russia; at present, however, they are subjected to the sovereignty of that country, and have, likewise, on the conclusion of the last peace, been acknowledged by the Ottoman Porte as Russian vassals, in consequence of the regulation of the frontiers on the banks of the Kuban.

The Circassians in general, and particularly the Kabardines, dwell in villages which, partly on account of the increasing uncleanliness, partly from the insufficient security they afford, and other causes, are from time to time deserted. On such occasions, they demolish their habitations, carry off the timber, together with their household furniture, and burn what they cannot remove. Their attention is next directed to the choice of another convenient situation for erecting a new village. If they happen to settle at some distance from water, their ingenuity enables them to form a canal, which they conduct from the next rivulet, by means of small banks; a practice in which they are as expert as the Tartars of the Crimea. Their houses are built contiguous to each other, either in the form of circles or squares, so that the inner space serves as a common large cattle yard, provided with only one gate, while it is altogether inclosed, and as it were defended by the circumjacent houses. The residence of the Usden stands usually detached from these circles, and consists of several apartments. Small solitary houses, or rather square rooms, about two fathoms wide, are here and there built for the accommodation of visitors, with a chimney, a small divan, and every other convenience. They likewise

occasionally erect, in the open fields, round huts of wicker-work, containing a pit which is used as a place of retreat. In the vicinity of the village are placed stacks of hay and corn, provided with a fence; they sometimes manufacture large baskets, which are fixed on the ground and secured with covers, wherein they preserve their corn after it is threshed.

The houses of the Circassians are built in the form of oblong squares, from four to five fathoms in length, and seldom above nine feet broad: the walls are made of close wicker-work, and on both sides carefully plastered with clay. On the posts supporting the walls, they place a flat roof of light rafters, which is covered with long grass. The whole dwelling consists of a large room appropriated to the mistress of the house, and a small apartment for the female slaves and girls. The principal room is provided with a door on the right-hand corner leading to the street, and another on the left corner leading to the inner yard. In the interior part of the house, against the front wall, there is a chimney made of plastered wicker-work, with a capacious fire-place and a short flue. On that end of the room which leads to the yard, we observed a broad couch, or divan, with carved balusters, excellent carpets and bolsters; in a collateral direction was a window towards the street, which occasionally served as an entrance to the room. Above the sofa, and on the whole wall around it, were suspended on pegs and poles various implements of female economy, such as articles of needle-work, apparel, and furs: on transverse poles, below the roof, was placed the store of Turkey wheat in full ears, which they roast in hot ashes, and collect the grains, separated from the ears by heat, for immediate use, and likewise to preserve them for warlike expeditions; as these grains, together with a species of cheese made of millet, afford on such occasions their principal and portable food. The husband ge-

nerally lives in a separate apartment, and is not very fond of making his appearance before his wife when she receives the visits of strangers.

The Circassians are upon the whole a handsome race of people; the men, especially among the higher classes, are mostly of a tall stature, thin form, but Herculean structure; they are very slender about the loins, have a small foot, and uncommon strength in the arms. They possess in general a truly Roman and martial appearance, yet there are still some traces left, from which it is obvious that they are descended from mothers belonging to the tribe of the Nagais. The women are indeed not uniformly Circassian beauties, but are for the most part well formed, have a white skin, dark brown or black hair, and regular features: I have, however, met with a greater number of beauties among them, than in any other unpolished nation.

In their villages and houses the Circassians are extremely clean; and this domestic virtue they likewise display in their food and dress. It would be superfluous to add a particular description of their usual garments. Their females dress in an uniform style, till they are delivered of the first child, after which they begin to cover the head with a white handkerchief, drawn close over the forehead, and fastened below the chin. It is a custom perhaps not generally known, that their girls, between the tenth and twelfth year of their age, are provided with laced stays, or a broad girdle made of untanned leather: this singular coat of mail is among the common people tightly sewed round the waist, but in the higher classes it is fastened with silver hooks, so that they are obliged to wear it till their wedding-night, when the bridegroom, with a sharp cutting dagger, unties this gordian knot, which ceremony is frequently attended with danger. Over the shift, the girls wear a laced jacket, because the petticoat, which reaches to the ancles, is open

along the whole front, and resembles that of a man; but married women dress in wide breeches. Besides the girdle of chastity above-mentioned, there is another circumstance which contributes to preserve the elegant shape of the girls: they are sparingly nourished, their whole allowance consisting simply of a little milk and pastry. According to the ideas of beauty prevailing among the Circassians, as well as the Turks, a woman ought to have a very narrow waist, and the abdomen should protrude toward the lower extremities. When females are obliged to leave the house, they wear a species of wooden clogs, to preserve their feet clean, and at the same time make use of mittens on their tender hands. Painting the face is considered here as an indication of the want of chastity; but girls are permitted to dye the nails of their fingers with the flowers of the *Balsamina*, which in their language is called *Kna*. Their head-dress consists of a cap, nearly resembling that worn by the men; under this ornament the hair is turned up in a thick queue, which is covered with linen.

It is a practice among the Circassians, to compress the waist from early infancy as much as possible, by means of straps, on which the sabre is suspended: hence they are in general uncommonly thin between the loins and the breast. I have also uniformly remarked, that their feet are of an extraordinary small size, because they force them in the tightest manner within their morocco slippers, which give them the appearance of dancers. The male dress is light, neat, and becoming; and, in many respects, resembles that of the Tartars, but is of a more elegant shape. The upper garment is regularly furnished with a small embroidered pocket, on each side of the breast, for containing cartridges. On the head, which is shorn in the Polish fashion, they wear an embroidered cap quilted with cotton, in the form of a melon, but occasionally lower, and ornamented with various gold and silver laces, especially among the wealthy; the

whiskers are likewise suffered to grow, as is common among the poles. Above the lower dress, which is made of light stuff, persons of distinction sometimes wear a short, rich waistcoat, as it were to supply the place of armour, either with or without a great-coat. The upper dress, consisting either of cloth or other strong woven stuff, is somewhat shorter than the under garment, while the sleeves are slit open, and frequently bordered with furs. The breeches are provided with knee-straps, and the seams are bound with small lace or embroidery, which the women very skilfully manufacture of gold and silver threads. When a prince, or usden, pays a visit in full dress, he arrays himself with all his accoutrements and coat of arms, above which he occasionally has an additional jacket of mail.

It is by no means uncommon to see Circassians of the lower class walking in the fields, dressed in their shaggy felt cloaks, called burki, even in the warm days of summer. When they do not carry a sabre with other arms, they provide themselves with a strong staff, two archines long, on the top of which is fixed a large iron head, and the lower end is furnished with a sharp iron pike, about eighteen inches long, which they are accustomed to throw expertly like a dart. Persons of wealth and rank never leave the house without a sabre; nor do they venture beyond the limits of the village without being completely arrayed, and having their breast-pockets supplied with ball cartridges.

Their clergy and the learned let the whole beard grow; the former generally wear a deep red turban, and scarlet breeches somewhat longer than those of the latter. Although the Circassians are ignorant and only nominal Mahometans, yet the few priests among them are highly respected. When they first submitted to the Russian sceptre, a small degree of zeal would have been sufficient to convert them to Christianity.

The princes and knights pursue no other business or recreation than war, pillage, and the amusements of the chase; they live a lordly life, wander about, meet at drinking parties, and undertake military excursions. The usdens, or knights, keep the lower classes of people in proper subordination, pay no duties to the prince, but are obliged to render personal services in war. Vassals, or boors, are considered as hereditary property, while they observe implicit obedience to the princes and nobles, insomuch that their lives and possessions are entirely at the disposal of the former; there is, however, no instance of their persons having been sold for bondage. These vassals, and the slaves made by princes and usdens during their wars, constitute the majority of the common people; they conjointly till the land with large ploughs, drawn by six or eight oxen; they attend to the pasturage of their flocks, carry the necessary timber and fuel from the forest, build houses, get in the harvest, and make hay, which during winter is foddered on the spot. Their wives and adult girls likewise assist at the harvest, and are in general not so confined and reserved in their conduct as those among the Tartars of the Crimea. When, on such occasions, the Circassians remove to some distance from the villages, they immediately construct huts, by joining poles which they cover with branches of trees and long grass, so that they almost resemble hay-stacks. Their princes encamp in similar huts, when in their excursions they are obliged to be stationary for a length of time. In their constant expeditions and equestrian rambles they erect small huts, by means of four poles fixed perpendicularly, and connected by rafters which form the roof, and are covered with felt, so as to serve them instead of tents.

Among the boors, or peasants, each male is obliged to work three days at hay-making, either for the prince or the nobleman; to cut wood in the forest for three days, to carry both the hay and wood to their

habitations, and to deliver for every bullock a cart-load, or seven sacks, of millet. A bridegroom of this class is compelled to give his lord of the manor two cows and two oxen for obtaining his consent to marry. But the inhabitants of the mountain, such as the Abbassines, Ossetines, Dugores, Bassianes, Balkares, Karatshaics, and Karabulakes, whom the Circassian princes have made tributary, give, in general, for each family, only one sheep, or its value in felts, felt cloaks, cloth, copper vessels, and the like. Every boor who possesses sheep, whether his flock be large or small, is obliged, during the encampment in summer, to contribute one sheep to the prince's household, who is thus enabled to preserve continual hospitality.

Although the prince is not restrained by any positive laws, he considers it as his interest to gain the affection and fidelity of his subjects in war, by a liberal and benevolent conduct. He has the privilege of raising a vassal to the dignity of an usden, or of ennobling him when he is deserving of that honour; but he has also the arbitrary power of depriving him of every thing he possesses. On important occasions, he assembles the nobles, and by these the resolutions agreed upon are communicated to the people.

It is difficult to ascertain the accurate amount of the population of the Circassians; but if it be admitted that the subjects of the line of Attashuka form about a third part of the horde or kabarda, and that this line consists of rather more than three thousand boors and five hundred usdens, it follows that the Kabardines can bring into the field about ten thousand privates and fifteen hundred usdens. If to this number we add the different tribes inhabiting the country beyond the Kuban, they will form a very considerable body of men, who, from their warlike and gallant disposition, might become very dangerous to the neighbouring powers, if they were not divided among

CIRCASSIAN PRINCE & PEASANT.

so many princes that are almost continually embroiled in quarrels. According to their feudal constitution, every man who is capable of bearing arms, especially a nobleman, is bound in duty to follow the prince into the field; as cowardice is among them punished with extreme contempt.

The two opposite customary laws, namely, those of hospitality and revenge, are sacredly observed among the Circassian knights, as well as among most other nations of the Caucasus. The right of hospitality, which they term *Kunak*, is established on certain principles; and every person submitting to its protection is perfectly secure from all injuries. He who befriends a stranger, defends him, if occasion require it, not only with his own blood and life, but also with that of his relatives; nor does he suffer him to depart without an equestrian escort, and delivers him over to his next confederates, under such conditions that a murder or injury committed on the guest is avenged with equal severity as the death of a relation by consanguinity. A stranger who intrusts himself to the patronage of a woman, or is able to touch with his mouth the breast of a wife, is spared and protected as a relation of the blood, though he were the enemy, nay even the murderer of a similar relative.

The opposite conduct, or bloody revenge, is practised with the most scrupulous adherence to custom. The murder of a family relation must be avenged by the next heir, though he should be an infant at the time when the deed was committed; every degree of vindictive malice is exercised sooner or later, whether publicly or in a clandestine manner, to take away the life of the murderer; lest the injured party should be considered as an outcast of society. Nay, this desire of revenge is hereditary in the successors and the whole tribe; it remains as it were rooted with so much rancour, that the hostile princes or nobles of two different tribes, when they meet each other on the road, or accidentally in another place, are compelled

to fight for their lives; unless they have given previous notice to each other, and bound themselves to pursue a different route. Among the Circassians the spirit of resentment is so great, that all the relations of the murderer are considered as guilty. This customary infatuation to avenge the blood of relatives, generates most of the feuds, and occasions great bloodshed among all the nations of the Caucasus; for, unless pardon be purchased, or obtained by intermarriage between the two families, the principle of revenge is propagated to all succeeding generations. The hatred which the mountainous nations evince against the Russians, in a great measure arises from the same source: if the thirst of vengeance is quenched by a price paid to the family of the deceased, this tribute is called Thlil-Uasa, or the price of blood: but neither princes nor usdens accept of such a compensation; as it is an established law among them, to demand blood for blood.

In their amusements, the youth of both sexes freely converse with each other, as the Circassian women in general are neither confined nor reserved. Yet in their courtships every attention is paid to the rank of the parties. No usden dares to court the daughter of a prince; and, if such an amour should ever take place, or the princess be seduced by an usden, the presumptuous lover, on the first occasion, forfeits his life without mercy. If the son or daughter of a family enter into the state of wedlock, they have no right to appear before their parents during the first twelvemonth, or till the birth of a child. During this period the husband continues secretly to visit his young wife through the window of the room; but is never present when she is visited by strangers: this affected politeness is carried to such an extent, that the husband is even displeased to hear others speak of his wife and children, and considers it as an insult if inquiries be made after the welfare of his spouse. The father does not give his daughter her full mar-

Cooper sculp.

*CIRCASSIAN NOBLEMAN.*

riage portion till after the birth of her first child; on this occasion he pays her a visit, takes off the cap she wore when a virgin, and with his own hands covers her with a veil, which from that period becomes her constant head-dress.

The education of the children of the Circassian princes is of such a nature as to suppress, from the earliest infancy, every feeling peculiar to consanguinity. Their sons and daughters are, immediately after birth, intrusted to the care of a nobleman, who is frequently none of the most wealthy; and the parents, especially the father, has no desire to see his son till he is an adult, and capable of bearing arms; while no notice is taken of the girls till after marriage. The tutor of the prince is obliged to take upon him the whole charge of his education: he instructs the youth during his adolescence, in all the schemes of robbery, which are held in great estimation among these equestrian knights; he provides him with arms, as soon as he is strong enough to wield them, and in such array he is presented to his father. The grateful pupil rewards his foster-father for the pains he has taken to qualify him in the predatory arts, by giving him the greatest share of the booty he is able to obtain.

The female children are nourished in the most sparing and wretched manner, that they may acquire a slender and elegant form; because such a stature is considered as an essential requisite to a Circassian princess. They are trained to all ornamental work in the domestic economy of females, especially to embroidery, weaving of fringe, sewing of dresses, as well as the plaiting of straw mats and baskets. The nobleman intrusted with their education is also obliged to procure for his princely foster-daughter a husband of an equal rank, in default of which he is punished with the loss of his head.

The sepulchres of the Circassians generally resemble those of the Abassines. When the head of a family

dies, the surviving widow is obliged to scratch her face and breast till the blood issues, as a token of the great affliction occasioned by the loss of her husband. The men, on a similar event, strike their faces with a whip, in order to produce black spots, which they exhibit for a considerable time, as expressive of their grief.

With respect to the rural and domestic economy of the Circassians, it deserves to be remarked, that they not only cultivate the ground, but likewise devote a considerable portion of their time to the rearing of cattle: their principal species of grain is millet, of which they make cakes, hasty puddings, and prepare various kinds of pastry, as well as their common beverage, by the natives called *Hantkups*, and by the Kozaks of the Terek, *Yantzokh*. Maize, or Turkey wheat, is also much cultivated, and used as a substitute for other food, when on their journeys and military expeditions. Several culinary vegetables, such as carrots, turnips, the turnip-rooted cabbage, onions, gourds, and water-melons, are likewise planted in gardens: the women manufacture a very strong thread of wild hemp, but they are not acquainted with the art of weaving linen.

The cattle of this people consist chiefly of goats, sheep, oxen, cows, and horses. Their sheep are generally an excellent race, of a white colour, have long tails, and produce a fine wool, which is carried to market, as well as a quantity of very good but narrow and undyed cloth, woven by the women: of such cloth are manufactured entire upper dresses for sale in the market: while the black and coarser species of wool is used for felt cloaks.

Their horned cattle is of a small size, and employed chiefly in drawing two-wheeled carts, here called Arbes: they walk with agility over eminences and hills, and in this respect resemble the oxen bred on the mountains of the Crimea, which are not so

heavy and slow as the large cattle of the Ukraine, but travel upon a quick trot.

It may be easily conjectured, that the most important object of attention among these predatory knights, is the rearing of fine horses; a business which is pursued with a degree of zeal and attention not inferior to that evinced by the Arabs. But the Circassians endeavour to breed not only beautiful, but at the same time strong and durable animals, which are capable of undergoing hunger and fatigue, and also excel in swiftness; as the success of their military enterprises depends on the superior quality of their horses. Almost every family of distinction, whether of princes or nobles, boasts of possessing a peculiar race of horses, which, when young, are burned on the buttock with a particular mark: on this occasion they act with the most scrupulous adherence to custom, so that a person who should attempt to burn a character expressing noble descent on a filly of a common race, would for such forgery forfeit his life.

The Circassians also rear poultry of almost every species, such as chickens, geese, ducks, and especially Indian fowls, of a peculiar size and beauty. They bestow considerable attention to the cultivation of bees, on account of the intoxicating quality of the mead, which is their favourite beverage. The bees are kept in hives placed on stocks, and carried along with them, as they remove and change their habitations.

We shall now take a view of the other Circassian tribes which inhabit the country beyond the river Kuban, and consequently are not included within the boundaries appointed at the conclusion of the last peace with the Ottoman Porte.

The next tribe is that of Beslene: they dwell near the source of the Laba, where this river issues from the high mountains, and their habitations ex-

tend downwards as far as the Khots, which falls into the Laba at its left bank, and thence up to the source of the Psefir, which flows into the Yamanssu, on its right bank. Here the country of the Beslenians borders on that of the Mukhoshians: they are the same tribe as the little Kabarda, and acknowledge Kanuka to be the common ancestor of their princes. In their manners and customs, they resemble the Circassians, but are more cleanly and wealthy than the people of the mountains.

The country bordering on the foot of the woody and black mountains is inhabited by the Mukhoshian tribe. Several small rivulets issue from those mountains, and flow through a fertile country into the Yamanssu.

The next tribe is that of Temirgoi, the most populous and powerful of all the Circassian tribes. They border with the Mukhoshians near the rivulet Arim, on the banks of which, below Labugai, is situated the village of Tsherikhai, belonging to these people.

The whole tribe of the Temirgois occupies more than forty villages, and is able to bring into the field upwards of two thousand men: the tribes of Beslene, Mukhosh, and Pshedukh, are their allies, and when united they possess a power of at least five thousand effective men: the Temirgois are a wealthy people, and the most cleanly of all the Circassians; their villages are uniformly fortified; thick poles are transversely placed, in a reclining direction, the lower spaces between which are filled up, but the upper part is covered with thorn-bushes; a contrivance which affords them an impenetrable fortification against their enemies, the Abassine tribes of Tubi and Ubikh, who reside in the mountains, and with whom they are frequently at war.

The fifth of the Circassian tribes; namely, that of Hattukai, is at present under the dominion of the Ottoman Porte.

The Hattukais inhabit the country extending from the foot of the black mountains to the fens of the Kuban, the southern side of which is surrounded by the river Yamanssu: there likewise resides among them a sultan of the Crimean family, called Bakhti-girei, who has considerable influence over their national affairs, though he possesses only a few vassals.

Another small branch of the Circassians deserves to be mentioned: it is known by the name of Shani, or Sani, and consists of only six villages; four of these are situated on the banks of the Attakum, and two below on the shore of a small lake. They formerly occupied the right bank of the Kuban, above Kopyl, but fled, together with the inhabitants of Taman, to the left bank of that river, on the approach of the Russian troops in the year 1778; they are governed by a prince, Misost Melikirei Sana, are able to bring two hundred men well armed into the field, cultivate the soil, and likewise attend to the rearing of cattle, but are poorer than the other Circassian tribes, and reputed to be great robbers.

Lastly, we ought not to pass over in silence another, though very insignificant Circassian tribe, called Shagaki, who inhabit the vicinity of Anape, on the banks of the river Bugur and its small collateral branches. Their former habitations were on the spot where Anape now stands, but their number has been much reduced, partly by the attacks of the Natukhasians, and partly by the ravages of the plague, so that a few only now remain. They are governed by Prince Mametgirei-Sane, who formerly carried on commerce, maintained his own ships in the Black Sea, and possessed considerable wealth. On account of his influence over the people living in the neighbourhood of Anape, he is treated with respect by the Ottoman Porte.

The next people I shall notice are the Nagais, or

the Tartars of the Kuban, who dwell among the Circassians, as well as in their vicinity, and generally lead a pastoral life. They are the remainder of the Mongolian Tartars, formerly a powerful people, who, after the reign of Tshingis-Khan, invaded and governed part of Asia, as well as Europe; but have, during the last century, been so much reduced by the vicissitudes of war, and their turbulent conduct, that they at present scarcely deserve the name of a nation.

There are likewise several separated branches of the Nagais and Tartars scattered on the Caucasus: particularly on the eastern part of those mountains.

The Ossetes, or Ir, and according to their own denomination, rones, whence their country is called Ironistan, are a very peculiar people, who have been compelled to retire to the interior parts of the high mountains. Their boundary towards the north is the Caucasus, towards the west the river Urup, to the east the Terek, to the south-west the river Rion, or Phasis of the ancients, and to the south-east Aragva. The whole tribe is divided into districts, or Kòm; and villages, or Kou.—With respect to the tongue exclusively spoken by these people, it is remarkable, that it has many words in common with the Persian, German, and Sclavonic languages, as well as expressions analogous to the dialect of these nations.—The Ossetes are a barbarous, predatory, and miserable race of men, who have always infested the public road leading to Georgia, through the mountains which they inhabit.

There is a tribe of people differing entirely from all other inhabitants of the Caucasus, in language as well as in stature, and the features of the countenance: their national name is Lamur, signifying inhabitants of mountains; by others they are called Galgai, or Ingushians. Their manner of pronouncing appeared to us as if their mouths were full of stones. We

were informed that they are an honest and brave set of people, maintain their independence, and are subject only to their elders, or priests, by whom their religious sacrifices are performed. They are almost the only nation inhabiting the Caucasus, among whom the shield has been preserved, as a part of their accoutrements. These bucklers are made of wood, covered with leather, and bound with iron hoops of an oval form. The short knotty pike which forms part of their armour, serves not only as a weapon of defence, but is likewise used for supporting the gun between its forked branches, by fixing the pointed end in the ground, which enables the sharp-shooter to take a more accurate aim. The Ingushians are excellent marksmen, but bestow little attention either to agriculture or the rearing of cattle, and are consequently in a state of poverty. They live in the vicinity of the sources of the rivers Kumbelee and Sunsha, and extend their habitations along the high mountains to the eastern bank of the Terek, where they border on the Ossetines.

Another chain of mountains, as lofty as the former, is inhabited by a nation called Suanians, but by the Georgians termed Svannetti, by the Kabardines Sona, and by the Basianes Ebse. Suani is the peculiar name of the natives, and signifies highlanders. Their habitations on the southern basis of the Elburus extend to the west, as far as the source of the Engur; towards the south, they border on the principality of Dadian, and the Imeretian province of Odishi; towards the east on the source of the Tzenistzkale, or horse-river, which indubitably is the *Hippus* of the ancients. They live dispersed in particular families, are great depredators, but nevertheless call themselves christians. Agriculture and the rearing of cattle are not altogether neglected among them: their principal intercourse is that with the provinces of Imeritia and Mingrelia. The population of these

depredators is not exactly known : it appears, however, to be but inconsiderable, because Tzar Solomon has repeatedly reduced them to submission, with an army consisting of not more than two thousand men.

Among the modern inhabitants of the environs of the Caucasus, should also be included, not only the brave Russian Kozaks of Grebenski and Semeinofski, who formerly settled in this vicinity, but likewise the Kozaks of the Volga or Dubofski, who, since the year 1771, emigrated to the banks of the Terek ; and, lastly, the Kozaks of Tshernomorski, who have lately peopled the right bank of the river Kuban : by this new population the frontier line on that river, which before was in a manner interrupted, has been rendered complete, since the late treaty of peace with the Ottoman Porte, so that it now extends from Ustlabinskoi Krepost, or the last fort of what is properly called the Lines of Caucasus, as far as Taman. Many of these tribes have, at different times, submitted to the protection of Russia, though they have by no means become good and trusty subjects ; nor has the Russian government succeeded in imposing the least burthen or taxes either on the Circassians and Abassines, or on the Nagais recently settled within the boundaries of the Kuban. The Abassines, however, have lately been prevailed upon to pay one ruble for every cart load of salt which they fetch from the lakes within the boundary, and of which their herds consume considerable quantities ; while, on the contrary, the tribes living beyond the Lines are still permitted to export this commodity, without paying any duty to the government.

## CHAP. VI.

### *Excursions in the Crimea.*

After travelling from Georgiefsk to Tesherkask and Taganrog, from thence to Taurida, our travellers proceeded to the Crimea. The appearance of these countries was not much different from those formerly described, and their botanical and mineralogical productions were altogether similar. "Nothing can be more gratifying," says Dr. Pallas, "after travelling over barren and uniform plains, than a view of mountains, and a country presenting hills and beautiful variegated woods, which are occasionally intersected with the whimsical meanders of rivulets. In addition to these charms, the mountainous part of the Crimea also offers an uncommon variety of delightful prospects in the advanced autumnal season."

The fine weather which prevailed during November, afforded our learned traveller frequent opportunities of pursuing his botanical researches, though the impaired state of his health set bounds to his zeal; and he was obliged to pass the whole of December and January within doors.

The town he chose for his winter's residence is termed Sympheropol, a name given by the ancient Greeks to a large and beautiful plain, situated towards the north of the old town, and on which are built the palace of the governor, and the halls of justice for the whole Crimea.

In the beginning of March the weather proved so extremely delightful that our travellers set out to explore the remarkable Tauridian Peninsula, partly over elevated plains, and partly through vallies clothed with verdure. They found the soil of these hilly regions every where interspersed with petrifac-

tions; in some, petrified crested oysters were discovered in a complete state of preservation.

After having completed their excursions over the more elevated mountains of Orion Tartary, they next explored not only the modern stratified heights, together with the adjacent plain, but also the Peninsula situated towards the Bosphorus, with its abrupt hillocks, and the opposite isle of Taman.

In the vicinity of Arabat, our travellers visited the fort of that name, and the isthmus thence proceeding into the sea. Besides a metshet with its octagonal tower, both of which are built of stone; and a wretched house for the governor, the fort presents only a few huts. The isthmus is here, and several hundred fathoms broad.

Kertsh, formerly called Bosphor, is situated on that part of the Bosphorus which expands towards the Black Sea, on a somewhat projecting neck of land. The fort is built of free stone, and commands the entrance into the harbour. Throughout the summer, a frigate is stationed here for guarding the Bosphorus; but on the approach of winter it returns to Akhtiar, as the streight is usually covered with ice.

The conveyance to the isle of Taman is by means of large boats, and during stormy weather is frequently attended with danger. To Severnaya Kossa, where the narrow northern peninsula, together with the European coast, forms the Bosphorus, the passage is only four versts, and is safer; but as there is no village in that neighbourhood, in which travellers can be supplied with horses, it is usual to cross the gulph of Taman, transversely, near the point of the Severnaya to the city of Taman. The Bosphorus has generally a superficial current running outwards, when it is not impeded by the wind. Here and along the whole coast, the fishery is very profitable, particularly for the different species of sturgeon; they are caught with nets and lines, as well as by means of a cord to which hooks are attached, so as to float on

the water. Such is the principal employment of the Greeks of Hertsh, who frequently take from three to four hundred veka, or from twenty-four to thirty thousand poods, of fish in one year.

The population of the Crimea formerly amounted to at least half a million, but from the frequent emigrations which have taken place at different periods, and especially soon after Russia had taken possession of this district of country, it is now, it would appear, greatly diminished.

The Tartar inhabitants of the Crimea may be divided into three classes: the first includes the Nagays already mentioned, the second comprehend those Tartars who inhabit the heaths, or steppes, as far as the mountains, and who in the district of Perekop, where they are still unmixed, retain many traces of the Mongolian countenance, with a thinly scattered beard. They devote themselves to the rearing of cattle, and to husbandry, though they pay no attention to gardening. To the third class, belong the inhabitants of the southern vallies, bounded by the mountains: these are a mixed race, which seem to have originated from the remnants of various nations crowded together in these regions at the conquest of the Crimea by the armies of the Mongolian leaders. The other Tartars not considering them as true descendants of their race, give them the name of *Tat.*

In the costume of the Tartars inhabiting the plains, there is some variety. Young persons, especially those of noble or wealthy families, dress nearly in the Circassian, Polish, or Kozak fashion. The physiognomy of the true Tauridian Tartars bears a great resemblance to that of the Turks and Europeans. There are handsome, tall, robust people among them, and few are inclined to corpulency; their complexion is rather fair, and they have black or dark brown hair. The boys and youths have a most pleasing and delicate countenance.

The dress of the Tartar women is very different from that of the Nagays; they are in general of low stature, owing to their confined treatment in early life, though their features are tolerably handsome.

The nobility and priesthood are highly respected among the Crimean Tartars, and in former times were often able to make a formidable resistance to the Khan, and even sometimes to effect his deposition.

"It would," says Dr. Pallas, "be here useless to enlarge on the religious ceremonies, nuptial solemnities, and other customs of the Tartars, as they agree in every respect with those of the Turkish Mahometans, so often described by travellers. Polygamy, it would appear, is however rare, even among the nobles and more wealthy inhabitants of towns; yet there are some persons in the villages who encumber themselves with two wives; though male and female slaves are not common, yet the nobility impoverish their estates by supporting numerous idle attendants; while their chief pride consists in the rich apparel of themselves and wives, in handsome equipages, and in being accompanied by a train of domestics, who follow them on every occasion. Another source of expence is the purchase of elegant sword blades; the distinction between the different sorts of which, together with their names, constitute among the nobles a complete science; the generality of whom were so ignorant, that they could neither read nor write, and instead of signing their names, substituted an impression of their rings, on which a few Turkish words are engraven. Some of the young nobility, we are informed, are now, however, beginning to study not only the Russian language, but also to apply themselves to reading and writing, and thus are becoming daily more civilized.

"When we consider," says our learned traveller, "the confined state of industry, the present thin population, and the scanty production of the fruits of

the earth, Crim-Tartary cannot promise itself any great import or export trade, especially from its isolated situation, and its distance from the interior provinces of Russia, which abound in grain. At present the most profitable branches of exportation are the following: viz. salt hides, soda, and butter; all other articles of commerce are insignificant, excepting a narrow, coarse, and middling Russian linen, of which upwards of 54,444 English yards are sent out of the country.

"The principal imports are the following: namely, raw and unmanufactured cotton of different kinds, silk stuffs of various patterns, and in the eastern fashion; farther, the wines of the Archipelago, and those prepared near the canal of Constantinople; *Sekiskaya Vodka*, or brandy distilled from fruit and the leaves of grapes; Turkish-leaf tobacco; and a variety of fresh and dried fruits."

The total amount of the export trade may be computed at from four to five hundred thousand rubles, *ad valorem*; and the first of these sums nearly corresponds with the statements of the Custom-house registers; on the other hand, the importation may be estimated at one hundred thousand rubles below that calculation. The balance is paid, partly in ducats, but chiefly in the base Turkish silver coin, which is extensively circulated within the peninsula; and, perhaps, large sums are concealed among the Tartars.

On the 18th of July, 1794, our travellers at length set out on their return to St. Petersburgh, directing their route towards Kosloff, in order to visit this ancient commercial town, which still possesses a considerable population.

From Koslof to Perekop, they travelled over a level sandy steppe; the soil of the whole Tarkhanskoi-Knt is of a similar nature.

On the 27th they departed from Perekop, and after travelling thirty-two versts, arrived at Kalantshak, where Prince Potemkin had erected a respect-

able palace, which was embellished with six adjacent buildings, but is now in a ruinous state.

They next travelled through a district, containing accumulations of drifted sand, and extending to the village of Oleshki. The passage from this place over the Dniessr, to the town of Kherson, is performed in ferry boats.

On the 25th of July, though the heat was almost insupportable, they proceeded on their route from Kherson, over gently rising steppes, through Byela-Tzerkou, or White Church, to Kopenka, and from thence to Nicolaef, which lies thirty versts farther.

On the 26th of July, our travellers continued their return from this place by the way of Akhtyrak, Sumi Mtshensk, the fine towns of Kursk, Orel, and Tula, to the city of Moscow. "I was induced thus abruptly," says Dr. Pallas, "to terminate my observations, as, besides these handsome towns, which are now rebuilt according to a modern plan, few objects occurred on my route; and because the road from Moscow to St. Petersburgh, where I arrived on the 14th September, has been repeatedly described."

END OF PALLAS'S TRAVELS.

# EMBASSY

## TO THE

# EMPEROR OF CHINA.

## CHAP. I.

*Occasion of the Embassy.*

THE embassy to China, of which the following is a summary account, was undertaken by government, as might naturally be imagined, on purpose to facilitate and extend our commercial intercourse with that empire. The Portuguese were the first Europeans who, in this point of view, explored the coast of China. This event took place in the fifteenth century, and from their earliest communication, they had rendered the Chinese such eminent services, as induced the emperor to grant them certain privileges and immunities; the Chinese themselves reposed in them the greatest confidence, and, in some instances, have granted them a decided preference over every other nation.

The Dutch, some time after, followed the track of the Portuguese; and they, too, having helped to subdue a powerful rebel who, with his fleets, was committing great depredations on the eastern coast of China, received great attentions from the government: the emperor invited them to Pekin, and loaded them with tokens of esteem. His successor, Cam-hi the Great, who reigned long and prosperously, admitted

into his familiarity all foreigners who were adepts in such of the arts and sciences as were better known and cultivated in Europe than in the eastern clime. Many of these were religious Missionaries from Spain as well as Portugal, all of the Roman Catholic persuasion, sent thither to propagate their modes of faith: men who, from their depth of learning, strictness of morality, and simplicity of manners, conciliated general esteem, made many proselytes, and by these means furthered the objects of such of their countrymen as had embarked only on the principles of commerce.

At the close of the sixteenth century, John Mildenhall was sent out by order of Queen Elizabeth, to the court of the Great Mogul, to obtain certain commercial advantages for the English. He was there strongly opposed by the Spanish and Portuguese jesuits, who, from craft and presents, contrived to frustrate its completion for some years. It appears that the exclusive privilege of resorting thither was claimed, and enjoyed, by the Portuguese till the year 1634, when a free trade to China, as well as to the other parts of the East Indies, was agreed to between the viceroy of Goa and a company of English merchants, pursuant to a licence granted for that purpose by King Charles the first, though in opposition to an existing charter of Queen Elizabeth, which delegated that immunity to others. This company of merchants, by virtue of the premises, fitted out a fleet of ships, and gave the command to Captain Weddell, who being furnished with correspondent letters to the governor of Macao, could foresee no obstacle to prevent the meditated intercourse with the Chinese at Canton. It seems, however, that the Procurator of Maccow, or, as it would appear, the Portuguese consul, on the fleet's arrival off that place, went on board the commodore's ship, and said, that as to matters of refreshment, he would provide them; but that there was an obstacle to their trading, which was,

the non-consent of the Chinese, who, he pretended, held his (the Portuguese) people in miserable subjection.

In the History of Commerce, whence this article is extracted, we are further informed, that the English, mortified, doubtless, at the disappointment, were determined to discover, if possible, the river leading to Canton. A barge and pinnace, with above fifty men, were accordingly sent out to explore, and in the course of two days they came in sight of the mouth of the river, the entrance of which was prohibited even to the Portuguese; and who, in consequence, carried on their traffic in small craft, through circuitous narrow straits amid various islands. The Chinese, alarmed at their appearance, came down the river, being then in sight of a fort or castle, with twenty sail of *junks*, (boats) all mounted with ordnance, and treble-manned, commanded by an admiral, who desired them to come to an anchor. Having complied, the Chinese began to expostulate on the temerity of coming thither to inspect their manufactures, and explore the interior parts of so great a prince's dominions; and asked who were their pilots. Being told that they came from England to exercise a free trade for the mutual advantage of both princes, paying the accustomed duties, like others, that they were without pilots, and were able, of themselves, to discover, by art, passages infinitely more intricate and dangerous, they began to relax their austerity, and promised to introduce three of them to the viceroy at Canton, provided they would proceed no farther in their pinnace. This was agreed to, and the next day, being within five leagues of Canton, (the alarm having reached that city) a deputation waited on them, and desired them, in a friendly manner, to return to their ships, with an assurance that if they would apply to certain persons at Maccow, they should have a licence granted them for the exercise of a free trade. This was nothing but an ar-

tific ; for their request being complied with, six vessels belonging to the Portuguese, laden with merchandize, sailed in the interim for Japan ; and it appeared they were under apprehensions lest Commodore Weddell should have seized them. Being now out of danger, they derided English credulity ; and confiding in their own strength, on the score of defence, sent the English a peremptory denial.

Enraged at this piece of oriental duplicity, a council of war was holden, at which it was unanimously resolved, to proceed up the river as far as Canton. Having reached the castle before-mentioned, by means of some interpreters they fell in with, they were introduced to some Mandarines ; who promised, on condition of their remaining on the spot for six days, to intercede with the principal men, resident at Canton, for the accomplishment of their wishes. This was another subterfuge in order to gain time ; for in the course of four days, the said fort, before dismantled, was now furnished with forty-six pieces of heavy ordnance ; and they actually discharged several shot at one of the barges, as it was passing by in search of a convenient watering place. This dastardly conduct, superinduced by the false representations of the Portuguese, so incensed the whole English fleet, that the same history tells us, they immediately hoisted the bloody flag, got under way, anchored within gun-shot abreast of the fort, and, by a brisk and well-conducted fire, silenced, in a few hours, this formidable battery. They then landed a hundred men, got full possession of the fortress, dismounted the ordnance, hoisted the British flag on the walls, set fire to the council-house, and demolished whatever they could. Having seized two or three small vessels, a letter was sent to Canton by one of the boats, complaining of their breach of faith. They also justified their proceedings ; and throwing all the odium on the perfidy and intrigues of the Portuguese, they ef-

fected a reconciliation, and obtained the object in view—a licence for a free trade.*

The unfortunate circumstances, however, under which the English first got footing in China, must have operated to their disadvantage, and rendered their situation, for some time, peculiarly unpleasant. Till then, the name of their country was unknown; and the contemptuous epithet of *carrotty-pate* was attached to them long after their commercial intercourse. These and other inauspicious impressions given of them by other European nations, added to the national and religious prejudices imbibed against them, and those unrestrained emanations of liberty and independence, too frequently indulged in by the natives of Britain, were only to be obliterated by a series of vigilant circumspection, and prudent demeanour; and more especially as merchants, as well as artizans, are there holden in the lowest degree of estimation. But of all foreigners, then carrying on traffic at the port of Canton, the English, from the above causes, were pourtrayed in the most unfavourable point of view: their complaints, however just and notorious, were deemed frivolous and vexatious; and, to prevent their grievances from being made known, persons were forbidden to translate them. The small number of the English who had acquired as much of the Chinese language as to be able to represent them, being applied to for that purpose, rendered themselves obnoxious, and it became dangerous for the natives to undertake to teach it. Now though a factory had been established upwards of a century, yet, for want of an assimilation of manners, sentiments, and habits, which facilitate and invigorate commerce; on account of the vast pre-eminence of rank arrogated by persons in authority at China, over those exercising any kind of traffic, mercantile concerns were materially impeded, and exposed to various impositions. Thus circumstanced, those ancient prejudices to strangers,

early imbibed, and deeply rooted, operating on the conduct of the Chinese, and reduced as it were to a science, founded on the perfect state of their own civilization, remained in their full force; and to repress the conduct of their European visitors, as well as to prevent the contaminating powers of bad examples among their own people, orders were issued that one port only should be left open for foreign ships; and at a stated period, every European was obliged to embark, or quit the Chinese territories, leaving his factory and concerns until the return of the ship the next year.

Another obstruction to commerce, which long existed, was, the natives were instructed, by the moralists of the empire, to admit it only from motives of humanity and benevolence, not from necessity or inclination on their part, nor any mutual benefit to be derived; and even the balance of trade in their favour, a desirable object with all other nations, among them was considered rather as an inconvenience than advantage. Indifferent, then, as to its progress, and it being rather *suffered* than *sought for*, strangers who exercised it could entertain but slender hopes of common attention, or common justice; nor could the English, in their dealings, procure any redress for insults, hardships, or oppressions. Such conduct, however, could not, in their opinion, be known to, nor authorised by, the Emperor of China; and, therefore, under this conviction, many agents of the India company, concerned in the trade thither, hinted the necessity and propriety of an embassy to his imperial majesty, in hopes that, by a true statement of their situation, he would order a removal of the existing grievances. The idea was communicated to some eminent artists and mathematicians, in the service of, and who resided at, the court of Pekin; and from a thorough knowledge of the disposition of those who composed it, conceived the measure would be attended with the happiest effects, provided it met

with proper support. Such an event, however, was not to be brought about by any of the English at Canton; they had not been particularly recommended by their sovereign, and were no otherwise known than through the descriptive medium of their adversaries or competitors. The same motives of policy or commerce which led to the establishment of ministers at other courts, applied with equal force and propriety to the appointment of one at Pekin. Besides, the mission of a British embassador, it was argued, would be as flatteringly received, as the spectacle would be splendid and novel. The annual amount of the trade between the two countries amounted to several millions sterling; and though the two seats of government were many thousand miles apart, yet the dependent territories of each state approximated within two hundred miles of that of Hindostan. It is here, however, deserving of notice, that there are some petty princes, often hostile to each other, but closely connected with, or dependent on, one or other of their two powerful neighbours, who occupy much of the space situated between the western limits of the Chinese province of Shen-see, and the eastern boundary of the British government of Bengal. In the common course of events, from such a relative situation, must arise discussions which might, without the intervention of persons of high rank and confidential character, lay the basis of disagreeable disputes between the two courts.

At Canton, a few years since, an accident happened which had well nigh put a stop to our foreign trade. Evils of every kind, fraught with this tendency, are to be apprehended, and ought to be particularly guarded against, especially by a commercial nation. On some day of rejoicing, in firing the guns of one of those vessels which navigates between the British settlements in India and Canton, but not in the employment of the East India company, two Chinese, in a boat, lying near the vessel, in the river Canton,

were accidentally killed by the gunner. The crime of murder is never pardoned in China. The viceroy of the province, fired with indignation at the supposed atrocity, demanded the perpetrator of the deed, or the person of him who ordered it. The event was stated, in a remonstrance, to be purely accidental; but the viceroy, supposing it to have been done from a wicked disposition, still persisted in his demand, and to assure himself of that object, he seized one of the principal supercargoes. The other factories being alarmed, united themselves with the English as in a common cause, and seemed disposed to resist the intentions of the viceroy; who, on his part, arranged his troops on the banks of the river to force a compliance. It was at last deemed expedient, on principles of policy, to give up the gunner, with scarce a glimmering hope that his life would be spared.

The Chinese government, ever on the watch with respect to strangers, and easily alarmed, foresees the possibility of the most distant evils; and there was much cause of apprehension lest, to avoid similar accidents, and to preserve the tranquillity of its subjects, it might not have been induced to put a total stop to foreign traffic. The effects which such a prohibition must have on our manufactures, not to mention the revenue, would have been severely felt in this country; but in no one article so much as that of tea, which is now become a necessary of life in all ranks of society; the sudden deprivation of which, having no proper substitute, might be considered as a national calamity.

The first importers of tea into Europe, which did not take place till the commencement of the last century, were the Dutch. They had heard of the general use of a beverage from a plant of that country, and they wished to establish the sale of an European plant praised for its virtues, for the same use among the Chinese, and thus exchange one commodity for the other. Sage was the herb fixed on, extolled by

the ancient physicians for its salubrious and longevous qualities. The European herb soon fell into disuse in China; but the consumption of foreign tea has since increased astonishingly in Europe. From fifty thousand pounds weight, the annual public sales of the company in the beginning of the present century, the sales in the same time now amount to nearly twenty millions of pounds, which is four hundred times as much as it was a hundred years ago.

Measures have been taken to introduce the culture of tea in such of the British territories in Hindostan as appear to be most congenial to its growth; and a small plantation of it, in the island of Corsica, is reported to be in a flourishing state; but the produce will not be equal to the expence. It is thought, however, highly probable, that we may, some time hereafter, furnish ourselves with this useful article on reasonable terms, without depending on the will or caprice of a foreign power. In the interim, prudence dictated the necessity of forming such a connection with the court of Pekin, as might place the British trade to China on a solid and more beneficial basis, as well as to remove the difficulties and jealousies which might arise on the side of Hindostan, from the intrigues and misrepresentations of the respective dependents or allies of China and Great Britain.

The forming and completing of such an alliance could not be expected to be brought about on a sudden. The court of Pekin was little inclined to an intercourse with foreign states, and deemed it wisdom to seclude its subjects, whom it considered as in the vale of happiness, from an association with the profane. A hasty exception to this could not be expected in favor of a nation, of whose virtues the emperor and mandarines were but little acquainted.

The punishment of a British subject, by express orders from Pekin, for endeavouring to penetrate to the capital, in order to present a memorial of grievances from the British factory, is a proof of the dif-

ficulty and hazard that might have attended an attempt to place a succession of British subjects, in dignified situations, at that court, whose amiable manners and discreet conduct would be adapted to gain the esteem and respect of every class; and by dissipating their prejudices, and conciliating their good will, obtain that confidence requisite for so desirable a connection. But a more rational hope for success was attached to the mission of an envoy of rank, invested with royal authority; and, accordingly, a nobleman of exalted merit undertook to make the experiment, but his premature death on the outward passage interrupted the expedition.

Some time after, other propitious circumstances occurred to press the execution of the original design, which had been delayed by the above event; and to the consideration of policy and commerce, were now superadded those of humanity and philosophy. Under the auspices of his present majesty, adding lustre to his reign, very considerable and important improvements had been made in navigation and geography, by voyages round the world, executed by able and scientific men. Enterprises like these, tending to enlarge the boundaries of knowledge, without the incentives of conquest or gain; voluntarily sacrificing every enjoyment, and encountering numerous perils, in order to enrich the pages of history or science, were, in the midst of war, regarded as sacred by an admiring enemy, and the persons and property of the adventurers, unsolicitedly, secured from hostility.

The accounts given by those who had hitherto been fortunate enough to penetrate into China, were contradictory and problematical, contributing rather to excite attention than satisfy curiosity. They all concurred, however, in assuring that, in regard to its natural and artificial productions, the policy and uniformity of its government, the manners and sentiments of the inhabitants, their civil institutions, moral maxims, and general economy, it presented, col-

lectively, one of the sublimest objects for human contemplation, or deep research. The imaginary danger of admitting a free intercourse to persons, prone to tumult and immorality, are the obstacles raised by the Chinese government against a free investigation of it; and this could only be done away by such strangers whose rectitude of conduct and suavity of manners should convince them to the contrary by examples of an opposite tendency.

To eradicate such inveterate prejudices, there might not only be required the effect of examples free from moral obliquity, but also the accompanying qualifications for moving in the higher sphere of life. Much might depend on the admission of an embassador into their territories, and the impression which he and his suite might make on the minds of the mandarines and the people at large, during their progress through the country, and his visit to the court; but principally, whether he could excite a wish, and procure residence, for succeeding ministers, contrary to the present received practice of the Chinese. To effect this would be a principal step toward the conclusion of an intimate alliance with the emperor, and, by consequence, a free intercourse with all parts of China. To aim at too much, in the beginning, might occasion either a tedious delay, or a total failure; and though the East India company were too well convinced of the inconveniences and oppressions attached to their commerce at Canton, yet, dreading hardships of a greater magnitude, they recommended the utmost care and circumspection, lest the government of China should, by any imaginary umbrage, entirely exclude them from entering their ports. Administration had, therefore, to select from her bosom, a person of great talents, long experience, and tried prudence; and it was some time ere the minister had determined on his choice.

## CHAP. II.

### *Preparations for the Embassy.*

The Right Honourable Earl Macartney, who had already advantaged his country by his diplomatic talents, and whose reputation was fixed for integrity and aptness for business, was appointed, by the minister, embassador extraordinary and minister plenipotentiary to the Emperor of China. On this occasion, the lords of the admiralty ordered a sixty-four gun ship, the Lion, to be fitted up for his lordship's reception, with leave to nominate the commander. Captain, now Sir Erasmus Gower, who in his juvenile years had been two voyages round the world, and fully equal to the important service, was selected for this purpose, and honoured with the command; and was also gratified with the choice of his officers, every class of which was soon filled.

To add dignity to the mission, a military guard was also allowed, to attend the person of the embassador, in compliance with the practice of eastern embassies. This guard, over whom it had been resolved to maintain the strictest discipline, in order to prevent the least dereliction of duty, or disorderly conduct, when in presence of the Chinese, was put under the command of major, now colonel, Benson; assisted by lieutenant, now captain, Parish; and lieutenant, now lieutenant-colonel, Crewe. Doctor Gillan was physician to the embassy, and Doctor Scott the surgeon; a gentleman of abilities and experience, who had long served in that capacity in the navy, with distinguished reputation. Doctor Dinwiddie, astronomer, and Mr. Barrow, both well skilled in mathematics and mechanics, had also appropriate appointments. Mr. Acheson Maxwell and Mr. Edward Winder, were made joint secretaries to the embassador; and Mr. Henry Baring, recently appointed a

writer in the service of the East India company, was permitted to accompany the embassy to Pekin. Two botanic gardeners also embarked, one at the public expence, the other at that of an individual in the embassy.

Another office, of no small import, still remained vacant, which was as necessary as its fulfilment was difficult; that of interpreter and translator. In all the British dominions, not one person could be procured properly qualified; and to depend on finding one at Canton, was too precarious for the importance of the embassy. The Missionaries tolerated at the court of Pekin are not allowed to leave the country; but some, by penetrating in disguise far from the capital, have been known to return. Some of the more learned Chinese, however, had by fortuitous circumstances found their way to Rome, and were employed at the Vatican, to examine certain Chinese books and manuscripts; and at Naples a college had been founded, out of zeal for christianity, dedicated to the education of young Chinese; who, by means of the European missionaries, had contrived to effect their escape out of China. The only resource left was, to see whether any of the above were willing to accept of, and qualified for, the employment. With this view, the secretary of the intended embassy sat out in January, 1792. He passed through Paris, where two foundations for foreign missions still subsisted, *La Maison de Saint Lazare*, and *La Maison des Missions Etrangères*. At the latter was one who had left China twenty years ago; but, besides that he was averse to re-visit that country, he had nearly forgotten his native language. He next went to Rome, but with no other success than that of having procured from Cardinal Antonelli, strong letters of recommendation to the Italian missionaries in China, as well as to the curators of the Chinese college at Naples. There, by the aid of his majesty's minister, Sir William Hamilton, to whom the college were under obligations, he overcame the scruples of the

curators; and two Chinese, uncontaminated in morals, amiable in manners, and candid in disposition, qualified to interpret between their own language and the Italian or Latin, came to England with the secretary of the embassy, in May 1792, expressly to embark for China in quality of interpreters.

They soon began to render themselves useful, by some pertinent hints respecting their own country, and suggested the fittest preparations for such an expedition. Presents, according to the eastern manners, are indispensible, both for the emperor and his court; and they mentioned what they judged might be most acceptable. Such articles as were there sought after with avidity, and produced the greatest profit, were, on this head, not to be disregarded. Extraordinary pieces of ingenious and complicated mechanism, richly and variously ornamented, and producing, by means of internal wheels and springs, apparently automatous movements, were exported annually to a considerable amount. These machines, taken over thither at the express desire of the mandarines, whom it might have been dangerous to disobey, were either given as presents, or a trifling sum, infinitely less than the first cost, was received in return, that the transaction might have the appearance of a common purchase. Many of these costly articles, obtained by the mandarines, for little considerations, from the merchants, under promise of protection from their *inferiors*, ultimately found their way into the palaces of the emperor and his ministers, in the hope of securing the favour of their *superiors*.

It would have been vain, in public presents, to think of surpassing, either in cost or workmanship, such articles of this kind, (called, in the cant jargon of the East, *Sing Songs)* as had passed thither through private channels; and besides, the annual accumulation of them was supposed sufficient to satiate the transient gratification excited by gaudy trifles.

Other presents were substituted in their room more worthy of princely notice and acceptance.

Astronomy being a favourite science in China, which has long engrossed the attention and occupation of the government, instruments of the latest improvements, and orreries representing the most perfect motions in the solar system, could not fail to be acceptable. To these were added, specimens or assortments of such of our manufactures, finished in the first style, as were adapted for general utility, or social comfort; which, besides being likely to prove highly grateful to those to whom they were presented, were likely to create a future demand for the same articles.

For the safer conveyance of these presents, the East India Company appointed one of their largest ships, and gave the command of her to Captain Macintosh; with instructions to carry out such persons appertaining to the embassy as could not conveniently be accommodated on board the Lion. A small brigantine, manned and officered from the Lion, was also fitted out, as a tender, to accompany the embassy.

It became necessary, while these preparations were making, to embrace the earliest opportunity of formerly announcing the intended embassy to the Chinese government, inasmuch as intelligence is frequently conveyed to China from foreign ports. Without this precaution, the undertaking might, through error or design, be made to assume an uncertain or warlike appearance,—the embassador's reception rendered dubious,—and the intentions of government completely frustrated. To secure, then, the effects of first impressions, which in every instance are difficultly eradicated, three commissioners, who had been selected by the East India Company to manage their affairs at Canton, were empowered to communicate, with due solemnity, the intended mission of Lord Macartney; and to deliver a letter, correspondent hereto, from Sir Francis Baring, then chairman of

the Court of Directors, in so public a manner to the Viceroy of Canton, as to prevent, if he had been so inclined, the possibility of its being kept from the knowledge of the Emperor.

This letter stated, "that his most gracious sovereign having heard that it had been expected his subjects settled at Canton should have sent a deputation to the court of Pekin, in order to congratulate the emperor on his entering into the eightieth year of his age, but that such deputation had not been immediately dispatched, expressed great displeasure thereat; and, being desirous of cultivating the friendship of the emperor of China, and of improving the connection, intercourse, and good correspondence between the courts of London and Pekin, and of increasing and extending the commerce between their respective subjects, had resolved to send his well-beloved cousin and counsellor, Lord Macartney, a nobleman of great virtue, wisdom, and ability, as his embassador extraordinary and plenipotentiary to the emperor of China, to represent his person, and to express, in the strongest terms, the satisfaction he should feel if this mark of his attention and regard should serve as a foundation to establish a perpetual harmony and alliance between them; and that the embassador, with his attendants, should soon set out on their voyage; and, having several presents for the emperor from his Britannic majesty, which, from their size, and nicety of mechanism, could not be conveyed through the interior of China to so great a distance as from Canton to Pekin, without risk of damage, he should proceed directly in one of his majesty's ships, properly accompanied, to the port of Tien-sing, approaching, in the first instance, as near as possible to the residence of the emperor of China." And Sir Francis ends the letter by "requesting the information thus given to be conveyed to the court of Pekin, trusting that the imperial orders would be issued for the proper reception of the king of Great Britain's ships, with his

embassador and suite, as soon as they should appear at Tien-sing, or the neighbouring coasts."

The presents on this occasion, expressed in the above letter, were illiberally construed by some persons to be directed to extraordinary and improper purposes, and the attention of the diplomatic corps was thereby awakened. One of these attributed the design to nothing less than that of engrossing the whole trade to China, to the exclusion of all other foreigners, and in his zeal for his court, proposed a counter embassy. That monopoly, however, had no part in it must be evident, when it is understood, that this intended embassy was expressly imparted to the States-General of the United Provinces, then in alliance with Great Britain, with offers of embassadorial service, in case the state of the Dutch factory at Canton should require such mediation.

But the real drift of the mission may be clearly ascertained by his majesty's private instructions to his embassador, in which it is signified, that "a greater number of his subjects than of any other Europeans had been trading for a considerable time past in China; that the commercial intercourse between several other nations and that great empire, had been preceded, accompanied, or followed, by special communications with its sovereign. Others had the support of missionaries, who, from their eminence in science, or ingenuity in the arts, had been frequently admitted to the familiarity of a curious and polished court, and which missionaries, in the midst of their cares for the propagation of their faith, were not supposed to have been unmindful of the views and interest of their country; while the English traders remained unaided, and, as it were, unavowed, at a distance so remote, as to admit of a misrepresentation of the national character and importance; and where, too, their occupation was not holden in that esteem which might be necessary to procure them safety and respect;" that, "under these circum-

stances, it became the dignity and character of his majesty to extend his paternal regard to these his distant subjects, even if the commerce and prosperity of the nation were not concerned in their success; and to claim the Emperor of China's protection for them, with that weight which is due to the requisition of one great sovereign from another;" that, "a free communication with a people, perhaps the most singular upon the globe, among whom civilization had existed, and the arts been cultivated, through a long series of ages, with fewer interruptions than elsewhere, was well worthy also of being sought by the British nation, which saw with pleasure, and with gratitude applauded, the several voyages undertaken already, by his majesty's command, and at the public expence, in the pursuit of knowledge, and for the discovery and observation of distant countries and manners; but that, "in seeking to improve a connection with China, no views were entertained except those of the general interests of humanity, the mutual benefit of both nations, and the protection of commerce under the Chinese government.

His Majesty's letter to the Emperor of China breathes the same spirit. It is therein said, that "the natural disposition of a great and benevolent sovereign, such as his imperial majesty, whom providence had seated upon the throne for the good of mankind, was to watch over the peace and security of his dominions, and to take pains for disseminating happiness, virtue, and knowledge among his subjects; extending the same beneficence, with all the peaceful arts, as far as he was able, to the whole human race." That his Britannic majesty, "impressed with such sentiments from the beginning of his reign, when he found his people engaged in war, had granted to his enemies, after obtaining victories over them, in the four quarters of the world, the blessings of peace, on the most equitable conditions;" that, "since that

period, not satisfied with promoting the prosperity of his own subjects, in every respect, and beyond the example of all former times, he had taken various opportunities of fitting out ships, and sending in them some of the most wise and learned of his own people, for the discovery of distant and unknown regions; not for the purpose of conquest, or of enlarging his dominions, which were already sufficiently extensive for all his wishes; nor for the purpose of acquiring wealth, nor even for favouring the commerce of his subjects; but for the sake of increasing the knowledge of the habitable globe, of finding out the various productions of the earth; and for communicating the arts and comforts of life to those parts, where they had hitherto been little known;" and that "he had since sent vessels, with animals and vegetables most useful to man, to islands and places where, it appeared, they had been wanting;" that "he had been still more anxious to inquire into the arts and manners of countries, where civilization had been improved by the wise ordinances and virtuous examples of their sovereigns, through a long series of ages; and felt, above all, an ardent wish to become acquainted with those celebrated institutions of his (Chinese) majesty's populous and extensive empire, which had carried its prosperity to such an height, as to be the admiration of all surrounding nations." That, "his Britannic majesty being then at peace with all the world, no time could be so propitious for extending the bounds of friendship and benevolence, and for proposing to communicate and receive the benefits which must result from an unreserved and amicable intercourse between such great and civilized nations as China and Great Britain."

It was evident that the embassy was not limited to affairs of commerce at Canton, as Lord Macartney had discretionary power to visit, besides China, every other country capable of affording useful or important information. He had diplomatic authority ad-

dressed to the emperor of Japan, and to the king of Cochin-China, and a general commission to all princes and states, in whatever part of the Chinese seas he might have occasion to touch.

The ships being, by this time, at Portsmouth, and every thing in readiness for the voyage, those who were to accompany the embassador, in all nearly a hundred, joined his excellency there in September, 1792, in order to their repairing on board. Impelled by the fascinating incitement of curiosity, already were they meditating China at a distance, and voluntarily quitted their native shores to engage in a perilous, but interesting enterprize; and when the wind and weather were announced favourable for departure, they felt no regret, or unpleasant emotion, except when the inward thrillings of affection awoke the remembrance of their friends and dearest connections.

## CHAP. III.

### *Passage to Madeira.*

The embassador and his suite being embarked, the Lion and Hindostan, accompanied by the Jackall tender, set sail from Portsmouth on the 26th of September, 1792. The weather soon changed from moderate to boisterous; in the night, the ships lost company of the tender, and were compelled to take shelter in Torbay; whence, after being detained two days by adverse winds, they again put to sea.

Steering the usual course, on the 10th of October, they discovered the islands of Porto Santo and Madeira, the latter of which, at the then distance, appeared like a huge mountain whose apex was lost in the clouds. Soon after, the Deserta's islands were

descried, subject also to Portugal, forming part of the Madeiras.

The first view of the island of Madeira represented it as rocky, barren, and uncultivated, but on a nearer approach its beauties opened to view, and formed a scene picturesque and enchanting. Funchal, its principal town, stands in the midst of a verdant valley, whose scattered edifices, being white externally, formed a pleasing contrast with the ever-greens and plantations, which, at all points, met the eye.

The seasons here may be said to be only two, spring and summer; as no degree of heat or cold has been found unpleasant. Fahrenheit's thermometer, during his excellency's stay, placed in the shade about noon, was from sixty-nine to seventy-two degrees. At Funchal, in January, when the tops of the hills are covered with snow, it is about sixty-four, and seldom rises in autumn higher than seventy-five.

The Portuguese Governor ordered due attention to be paid to the embassador, offered his excellency a military guard, who refused, but accepted a polite invitation to partake of an entertainment truly sumptuous; to which the embassador's suite, the officers of the Lion and Hindostan, the merchants of the British factory, and the most respectable inhabitants of the island, about two hundred persons, were likewise invited. A young lady, only ten years old, daughter of the governor, did the honours of the table, till the desert was brought, when the governor's wife presided.

From a geometrical survey of this island by Mr. William Johnstone, a native of Great Britain, lately a merchant in Madeira, he found it to be of a parallelogramic form; its mean length, from W. N. W. to E. S. E. was about thirty-seven miles, and mean breadth eleven miles, comprising an area of four hundred and seven square miles, equal to two hundred and sixty thousand four hundred and eighty

acres. It is divided into thirty-seven parishes, and its inhabitants are computed to be eighty thousand.

Many parts of Madeira being mountainous, declivous, and rugged, and others nearly destitute of soil, are incapable of culture. Small patches, indeed, of cultivated ground appear in the narrow valleys, in which also there are some villages. But though the cultivators are lazy, yet they have shewn instances of industry, by breaking, on the sides of hills, thinly covered with soil, such pieces of scattered rock as contain vegetable matter, into smaller parts; and the rills, from the heights, being made to flow over, the fragments comminute and become a fertile mould.

Indolence, however, prevails with the men, who enjoy ease at home, while their wives and daughters go barefooted, to a considerable distance, over rugged paths, up to the mountains to cut broom for fuel. This they carry in loads to Funchal, and dispose of it for subsistence, which is chiefly on salt fish. Thus severity of labour, poorness of food, and warmth of climate, make them old in frame when young in years. The complexion of this class of the people is dark, their stature low, and the spirit and activity of their ancestors much degenerated.

The hog is the food most relished at Madeira. These animals, when young, are marked by their owners, and suffered to range wild among the mountains, and at last are hunted and caught by dogs.

No serpents, nor any noxious animal, have been known to exist at Madeira; neither are there hares or foxes. Fish, of several kinds, are caught on the coast, but herrings and oysters are strangers there. Salted cod in abundance is imported from America; and being the principal diet of the poor, occasions among them frequent scorbutic eruptions.

The inhabitants are amply supplied with delicious fruits and vegetable esculents, of various kinds, for

the table. But the grape, chiefly white, is the staple production of the island. Twenty-five thousand pipes, each of a hundred and twenty gallons. are made annually; half of this is exported to England, North America, and the West Indies, and the residue is consumed by the inhabitants, either in its natural state, or in a spirit from distillation.

This sort of wine has the appellation of dry Madeira, the highest price of which to dealers, is thirty-two pounds a pipe; but private individuals are, from general customs, made to pay more. The merchants, however, add one pound per pipe extra, to the above charge, for every year they keep it in their cellars, as an equivalent for interest of money, and other incidental losses.

Other kinds of grape are natives in Madeira; one, whose juice has a deeper colour than the former, the wine of which is called tinto. Another, called bastardo, has a red skin, but produces a white juice; and lastly, on some few soils a third species is raised, whose juice is remarkably sweet and rich, from which is made that celebrated wine called malmsey. The annual produce of this vine is averaged at five hundred pipes, fetching, at market, about sixty pounds per pipe. The merchants of the British factory here, like that at Oporto, attach themselves to the cultivators of the vine, and supply them, in advance, with whatever can contribute to their necessities. They are remarkable for their hospitality to strangers. Their houses are spacious and open, on the slightest recommendation, for the reception of passengers, who stop there, for refreshments in their way to Asia or America.

Provisions excepted, the government of Portugal imposes a duty on all imports into Madeira, and also on wine exported. And though internal taxes are levied, yet, after defraying the expences of the civil and military establishments, the surplus is said not to exceed eighty thousand pounds. The balance of trade to that island is much in favour of the English. Twen-

ty trading houses of great solidity, whose acquired fortunes ultimately centre in Great Britain, constitute the present British factory. Their immense capital, avowed integrity, and commercial knowledge, have stifled every competition, and left them in the almost entire possession of the trade to Madeira.

The salubrity of the climate protects its inhabitants from various diseases. The scurvy, from bad provisions, is the lot of the poor; and paralytic affections, from indolence, and repletion, that of the rich. Intermittents are unknown there. The small-pox proves most fatal in summer; and inoculation, on account of religious scruples, is rarely performed.

The town contains about fifteen thousand inhabitants; and though streams of water run through the streets, they are kept very dirty. Some improvements are going on, to which the governor has contributed, and among these is a delightful mall, with two rows of handsome trees. The cultivation of the country keeps pace with an increasing population; but the uncertainty of the seasons often causes failure in crops, and subjects the farmer to hardships. The creditor can seize property for rent, but cannot imprison the debtor.

The sugar-cane is but little cultivated here. The cane resembles, in form, the common reed, grows to the height of about eight feet, and has a jointed stem, with leaves springing from the joints. The best and sweetest juice is centered in the middle of the stem. A few trees of the true cinnamon, with three-ribbed scented leaves, and a thin fragrant bark, are thinly dispersed.

From Funchal, to the eastward of the island, the road is steep and craggy up hills; at the top was a narrow path, on one side of which was a perpendicular rock, on the other a dreadful precipice, passable only to pedestrians, except to those well-trained sure-footed mules. Farther on is an open plain, adorned with myrtle and box-tree, growing wild; and

also the whortleberry shrub, far more considerable in height and luxuriance than any which grows in England. At the east end of the island, some gentlemen of the embassy, who had made the excursion, discovered the crater of a distinct volcano, four hundred yards in diameter; at the bottom and round the sides of which were scattered fragments of lava.

It appeared to Dr. Gillan, that "there had been several craters in the island, and that eruptions had taken place from them at various and very distant intervals. This was particularly manifest at a place near the brazen-head, where might easily be counted twelve different eruptions of lava from neighbouring craters."

The chain of the highest mountains of Madeira has hardly any volcanic appearance. The clouds envelope frequently their tops, and from them descend all the streams and rivulets of the island. Their antiquity is marked by the deep chasms or gulphs they have formed in their descent between the ridges of the rocks, during the long lapse of time they have continued to flow. In the beds of these rivulets are found pebbles of various sizes, and large round masses of silex, such as are usually found in the beds of many similar torrents in the Alps. The soil, also, of the fields and pasturage grounds appears exactly the same as those of the Continent, where no volcanic fire has ever been suspected.

It is likewise to be observed, that no lava of a glassy nature has been discovered in Madeira, nor any perfect pumice-stone; circumstances which both indicate that not the highest degree of heat had been suffered here: but it is probable that the bay or beach of Funchal is a segment of a large crater, the exterior part of which has sunk into the sea; for, in the first place, the shining or blue stones upon the beach are all of compact lava; secondly, tempestuous weather throws always upon the shore larger masses of the same blue lava stone, and, also, a quantity of cel-

lular lava, approaching to pumice-stone in texture, but much heavier, and not fibrous; and, lastly, the Loo Rock, and landing-place opposite to it, to the westward of Funchal bay, as well as that upon which Fort St. Jago is constructed, are evidently perpendicular fragments of the edges of the crater, which have hitherto resisted the action of the sea, by having been better supported, or having more closely adhered together, though much worn by the violence of the surge. They bear not the least resemblance to the neighbouring rocks a little within shore.

The island of Madeira is well defended by nature. Violent surges beating constantly upon its rocky shores, form a strong barrier against invasion. Art has, likewise, contributed to the strength of the capital, which extends three quarters of a mile along the beach, and nearly half a mile in depth, by four forts; St. Jago, St. Lorenço, Peak Castle, and another upon the Loo Rock.

The military establishment of the island consists of three hundred regular troops, half infantry, the rest artillery; and two thousand militia, who are embodied occasionally. The latter, making two battalions, are obliged to provide themselves with an uniform. There are also ten thousand irregular militia, who are not so clothed, nor called out to exercise, and being at no expence on that account, are compelled to do garrison duty, to take charge of signals, and repair the highways. Three colonels are appointed, in separate districts, to command them; and they are farther subdivided into companies, each of which has a captain and lieutenant.

The Lion and the Hindostan having procured the necessary refreshments, and recruited and completed the stock of water and fuel; and having left instructions for the Jackall, who had not yet rejoined them, to proceed to Port Praya, in the island of St. Jago, his excellency and suite embarked from Funchal on the 18th of October, 1792.

## CHAP. IV.

*Passage to Teneriffe; to St. Jago. Notices of the Islands.*

Captain Sir Erasmus Gower, in order to obtain a better wine for the seamen than could be procured at Madeira, at the contract price, resolved to touch at Santa Cruz, on his way to St. Jago; and steering for this place, they entered the bay on the 21st of October, and anchored in twenty fathoms water.

The place is defended by forts and batteries; and the shore so fenced, by cragged rocks and constant surges, as to render it nearly inaccessible to boats. The regular troops do not exceed three hundred; but every person capable of bearing arms is enrolled in the militia.

To the above securities of art and nature against the attacks of an enemy, arises another to which hostile ships are exposed: the wind is hardly ever favourable to clear the land. This danger proved no obstacle to the ardour of the gallant Admiral Blake, who, in 1657, entered the road, attacked and destroyed a fleet of Spanish galleons, in strength nearly equal to his own; and then, by a fortuitous wind, he brought off his squadron in perfect safety.

The town of Santa Cruz is pleasantly situated. It has a handsome pier, convenient landing-places, and an excellent quay, shaded by several rows of trees. Its streets are elegant, and tolerably spacious. A fountain, adorned with marble statues, stands in a square; and the neighbourhood affords many delightful promenades.

The mountains to the northward of the town are rugged, and the rocks found upon them volcanic. Notwithstanding, they produce beans, corn, and grass for fodder. The culture is ingeniously carried on to

their very summits by means of stages or platforms of soil, supported by fences of stone. Various wild odoriferous herbs were scattered around; and some of a powerful, and as it were inebriating, smell.

La Figuera de India, called, in English, the Prickly pear-tree, bears a fruit which is held there in great estimation; but it is neither easily plucked nor eaten. A peasant, whom a gentleman belonging to the Lion, then on an excursion, accidentally met, obligingly undertook to overcome the difficulty. He gathered one, by enveloping the fruit with a tuft of grass, to guard his fingers from the prickles. He warily took off the rind, and the pulp being exposed to view, proved delicious to the taste, uniting the flavour of a fig, the winter Burgundy pear, and the water melon.

Other gentlemen, belonging to the ships, made an equestrian tour into the country, in which they visited the capital of the island, called, St. Christophé de Laguna. The governor resides at Santa Cruz, but here are holden the courts of justice. The city is built on an eminence in an extensive fertile plain; it contained several fountains, which were supplied with water from the neighbouring heights, by means of an aqueduct. The soil produced vines, Indian corn, potatoes, and a species of beans. Even the bosoms of the mountains were cultivated, and their craggy sides covered with various sorts of spontaneous plants.

At the bottom of an amphitheatre of mountains, out of which rises the Peak of Teneriffe, is the villa, or capital, Orotava, otherwise called Oratavia, the port of which is at three miles distance. The trade here, as at Madeira, is chiefly confined to British merchants.

From this place, the ascent of the Peak is generally attempted; accordingly a party from the ships undertook, on the 23d October, to visit it. The season of the year was doubtless unfavourable; the cold on the mountains was said to be intense; and sudden showers of snow and hail often overwhelmed

the traveller. They set off, however, about noon, accompanied by two muleteers as guides. They passed through a pleasant vale covered with vines; and ascending an eminence, the sloping sides of which were entirely covered with a grove of chesnut trees, they arrived at the summit of the first, called the Green Mountain.

They had now to attain the top of a second mountain, whose sides were craggy and sterile, and its ascending path on the brink of precipices. A few pines were thinly scattered on its sides. In the afternoon, by means of a barometer, they found they had ascended nearly six thousand feet above the town. The mountain upon which they stood, was now overcast with clouds; and various, and impetuous gusts of winds, combating each other, seemed to threaten any farther approach.

Excavations, resembling distinct craters of volcanic matter, were discovered in every part of this mountain; and night setting in, and the path being difficult, the guides not only proposed to halt, but, in contempt of threats, were unwilling to proceed. The travellers wanted much to reach that part, known by the name of La Estancia dos Ingleses, the resting place of the English. It then began to rain, and blow with violence, and the guides, anticipating, from experience, an approaching tempest, declared the unsheltered traveller must inevitably perish, and insisted on stopping under the brow of a projecting rock.

They had furnished themselves with provisions at Orotava; they kindled a fire with the branches of the cytisus; and the leafy boughs of the Spanish broom served them as a couch to sleep upon. The thermometer was now at forty-five degrees; the air keen, the wind tempestuous, and they had no shelter against the rain.

At day-break they arose; but the weather was exceedingly boisterous, driving with violence heavy drops of rain. They saw the point of the upper

cone; but the conical frustrum, by which it was supported, was concealed by thick clouds: these rolled in succession along its sides, and being thence rapidly hurled into the vallies, between the hills, against which they were forcibly driven, quickly condensed into rain. Some of the party then gave up the project, and, by the assistance of one of the guides, returned to Orotava.

Previous to their arrival at the sea-port of Orotava, and at a little distance from the city, or upper town, of the same name, neatly built of stone, they saw on their way, a remarkable Dragon's Blood tree. Its trunk, at the height of ten feet from the ground, measured thirty-six feet in girth. At the height of fifteen feet, it divided itself into about a dozen branches, sprouting regularly, as from a centre, in an oblique direction upwards. These produced, only at their extremities, thick, spongy leaves, resembling, but smaller than, the common aloe. This tree, by a tradition current in the island, existed three centuries ago, at the time the Spaniards conquered Teneriffe; and it is now, as it was then, a distinguishing landmark.

The gentlemen who pursued their journey towards the Peak were attended by another guide, one of the few remaining of the descendants of the Guanches (original inhabitants), and sole possessors of the island, when it was first invaded by the Spaniards in the fifteenth century. They had attained the summit of the mountain whence arises the great cone, which being frequently covered with snow, occasioned the ancients to give the whole island the name of Nivaria.

The plain, on the top of this mountain, presented a dreary waste, loaded with masses of black lava, without verdure or vegetation; except a solitary cytisus, which peeping now and then, through the fissure of a rock, discovered its feeble withering branches.

Having already ascended two thousand feet above the place where the preceding night they had taken

shelter, the muleteers became refractory, and impeded the progress of the animals. The cold, indeed, was piercing and intolerable; the fall of sleet torpified the hands, and incapacitated them from holding the reins. In their perilous situation they had many hair-breadth escapes, but none more so than Dr. Gillan. Stimulated by curiosity to follow his friends, and forced by the wind to the edge of a precipice, his mule fell, opportunely, into a bed of volcanic ashes, or both must have been hurled down the precipice, and inevitably perished. At this time the tempest raged with increased violence, and the drops of rain fell half congealed; the difficulties they had to encounter were insurmountable, and the only choice left was that of returning.

Excursions to the Peak, at proper seasons of the year, are attended with less difficulties. The same Mr. Johnson mentioned in the preceding chapter, as having surveyed Madeira, visited this place in the summer time. He and his party provided themselves with tents, and slept, the night before they got to the Peak, nearly about the same spot which finished the labours of those just mentioned.

"There," it is said, "they encamped on ground covered with pumice stone, a stream of lava on each side; in front, a barren plain; the island of Grand Canary bearing south-east, as if rising out of an immense field of ice, formed by the clouds below them. About four o'clock next morning, the first of August, the moon shining bright, and the weather clear, they began to ascend a kind of path, along the first great frustrum, leading to the smaller and higher Sugar-Loaf. The passage was steep and disagreeable, being covered with pumice stone, which gave way at every step. In about an hour they got to the Alta Vista, where it was necessary to climb over the lava, leaping from one large stone to another, till they arrived at the foot of the Sugar-Loaf. Here they rested about five minutes.

"They then began to ascend the Sugar-Loaf. This was by much the most fatiguing part; it being exceedingly steep, and wholly consisting of small pumice stones, so that the foot, at every step, sinks and slides back. They were obliged to take breath, repeatedly. It was little more than six o'clock when they got upon the summit of the Sugar-Loaf. At this time the clouds had gathered about a mile and a half perpendicular below. They were thick, and had a very striking effect, appearing like an immense extent of frozen sea, covered with innumerable hillocks of snow, above which the islands of Grand Canary, Palma, Gomera, and Hiero or Ferro, raised their heads. On the sun's getting a little higher, the clouds disappeared, and opened to the view the coast around. The colours, hoisted on the Peak, were distinctly seen by gentlemen in Orotava, through their telescopes.

"The prospect from the Peak is romantic and extensive, no other hill being of a height to intercept the view. The coast is perceived all round, and a distinct idea of the island formed. The north-west coast appears to be well cultivated; but the south-east seems dreary and barren." Within the summit of the Peak, he relates, "is an excavation or cauldron, not less than eighty feet in depth, into which the gentlemen descended, and gathered some sulphur, with which the surface is mostly covered. In many parts the foot cannot rest upon the same spot above a minute, the heat penetrating quickly through the shoe. Smoke issues frequently from the earth. Just under the surface is a soft reddish clay, so hot, that the hand introduced into it must instantly be withdrawn. In the cauldron, the sulphureous odour is very offensive; but on the ridge it may be easily endured.

"From this place they saw the town of Santa Cruz, and the shipping in the road, which is a distance, in a direct line, of about twenty-five miles. They con-

tinued two hours and a half upon the summit of the Peak, without feeling any inconvenience from heat or cold. Soon after sun-rise the thermometer, in the shade, was at fifty-one degrees. They descended the Sugar-Loaf, in a few minutes, running the whole way, which was found to be the best mode.

"At the foot of the Peak, there were several caverns in the midst of lava, some filled with fine water, extremely cold, and frozen at the edges of the caverns. Others, in the winter, are filled with snow, over which the sun never shines; and, thus, snow continues in them throughout the year."

The height of the Peak, also measured by Mr. Johnstone, was found to be two thousand and twenty-three English fathoms, or two miles two furlongs and eighty-six yards; and its distance from the sea-port to Orotava eleven miles and a half, bearing south, forty-eight degrees west; the variation of the compass being sixteen degrees to the westward of the Pole.

Religion here, as in every part of the Spanish dominions, engrosses much of their leisure which might be devoted to instruction and improvements. Even ladies of rank seldom go out but to mass, matins, or vespers. The unmarried live in convents, and are there often enticed to take the veil.

The residence of the Bishop of the isles, whose revenue is ten thousand pounds a year, is at Canaria; his unbounded charity is equal to his ecclesiastical rigour. Religion suffers very little interruption by commerce. Foreign ships rarely touch at any other place than Teneriffe; and from Santa Cruz are annually exported about twenty-five thousand pipes of wine, chiefly to the English, in return for manufactures.

The revenue accruing to the crown from all the Canaries, after deducting the ordinary expences of administration, does not exceed sixty thousand pounds a year. The duty on tobacco and snuff is so enor-

mous, that the temptation to smuggle is irresistible. The royal monopolies, of which Orchilla is one, are the chief grievances of the inhabitants.

Teneriffe, though not the largest, the most populous and fertile of the Canary Islands, is about seventy miles in length, and twenty-two in mean breadth. Its surface contains one thousand five hundred and forty square miles, or nine hundred and eighty-five thousand six hundred acres. Its inhabitants are computed at nearly a hundred thousand, which averages about sixty-five persons to every square mile.

The population of the Grand Canary island is estimated at forty thousand inhabitants; Palma, thirty thousand; Forteventura, ten thousand; Lancerota, eight thousand; Gomera, seven thousand; and Hierro, or Ferro, fifteen hundred. This island, the westernmost of all the Canaries, is the most western part of the old world, from which geographers used to calculate their first meridian.

On the 27th of October, the Lion and Hindostan left Santa Cruz, and steered their course towards Port Praya, in the island of St. Jago.

They came in sight of Bonavista, one of the Cape de Verde islands, on the first of November; on the 2d,—of the isle of May. The next day the island of St. Jago appeared; and at noon the Lion anchored in Praya Bay, in seven fathoms water. The latitude of the Bay is fourteen degrees fifty-six minutes north, and the longitude twenty-three degrees twenty-nine minutes west. The variation of the compass is twelve degrees forty-eight minutes west. Ships, bound to the southward, generally stop here for fresh provisions. The coast teems with various kinds of fish. At this time, however, the island was in a state of desolation and famine; nor had any one of the Cape de Verde's escaped the calamity. Little or no rain had fallen for three years past; the rivers were dried up; vegetation had ceased; and the cat-

tle perished as well from want as drought. Some inhabitants had prudently migrated; many of those who remained were starved to death.

Upon a sandy beach a little to the right of St. Jago, close to the rock, and at the foot of an elevated plain, are the ruins of a once elegant Romish chapel, built probably, by the grateful piety of a person saved from shipwreck.

The town of Praya, if such it may be called, is situated upon the plain above mentioned. It consists of about an hundred small huts, one story high, built of wood, thinly scattered. It has a fort or battery almost in ruins. The jail was the best building, and next to that the church, at which officiated a mulatto priest.

The governor resides in a small wooden barrack, at the extremity of the plain, commanding a view of the bay and shipping. The embassador was received by him with due honour and respect; advancing a considerable distance from his house to meet and conduct him thither. But as he had shared in the general wretchedness, occasioned by the long drought and arid winds, he had neither wine nor any other refreshments to offer.

Notwithstanding the general devastation in the vegetable kingdom, a few verdant palm-trees were seen to flourish amidst burning sands. The asclepias gigantina, noticed for its milky, but corrosive juice, was rich in flower. The jatropha curcas, or physic nut-tree, called by the French West-Indians *bois immortel*, was also flourishing; and in shady vales, some indigo plants, and a few cotton shrubs, were successfully cultivated. The mimosa, or sensitive plant, common about the country, growing to the size of trees, did not appear to languish; and in some parts the annona, or sugar apple, was in perfect verdure.

A tree, which, for size, may be called a phenomenon in vegetation, was discovered in a healthy state,

in a vale about a mile and a half from the town of Praya, called by botanists adansonia; in English, monkey bread-tree. The natives of St. Jago call it kabisera; others, baobab. The circumference or girth of the base was fifty-six feet, which soon divided into two vast branches; the one in a perpendicular direction, whose periphery was forty-two feet, the other about twenty-six. Another of the same species stood near it, whose single trunk, girthing only thirty-eight feet, was scarcely noticed.

A small rivulet, distant, inland, about two miles, but which soon falls into a bottom, irrigated some grounds, and rendered them fertile; and also supplied a few of the inhabitants with water, at this calamitous period. Near this spot was planted the maniota, or cassada-tree, whose expressed juice from the root is deadly poison. The root itself is salutary; and so is the sediment deposited from the poisonous juice, being the substance sold in England under the name of tapioca.

The town of St. Jago, formerly the capital, is situated in the bottom of a vale. Not more than six families reside there. The country, then arid, bore the appearance of natural fertility. By the information of a Portuguese, the Isle of Brava, one of the Cape de Verde's, was a better place for ships to touch at, at any time, for provisions and water, than St. Jago. It had three harbours, but that at Puerto Ferreo, to the southward, was the most commodious for large ships. Captain Sir Erasmus Gower, to whom the like information had priorly been given, recommends to make a trial of them.

The population of all the Cape de Verde Islands, about twenty in number, is estimated at forty-two thousand inhabitants. Of these St. Jago is said to contain twelve thousand; Bonavista eight thousand; the Isle of May seven thousand; San Nicholas, the most pleasant of the whole, the residence of the bishop of the Cape de Verde's, six thousand; San Antonio

four thousand; San Phelippe de Fuogo, remarkable for a volcanic fire issuing constantly from the cone of a mountain in its middle, four thousand; Brava five hundred, and in those not specified still fewer.

They had now been at Praya Bay five days, without seeing the Jackall. It was therefore determined to prosecute the voyage without her, and the two ships accordingly set sail from St. Jago on the 8th of November.

## CHAP. V.

*Passage of the Line. Course across the Atlantic. Harbour, City, and Country of Rio de Janeiro.*

The settlements on the coast of America always afford abundance of refreshments, which, sometimes, are not to be met with in other places. On this account the Lion and Hindostan directed their course to the port of Rio de Janeiro, a rich province of Brazil, subject to the Portuguese, of which St. Sebastian is the capital.

Easterly, called trade winds, are prevalent from the continent of Africa to the Atlantic Ocean; but on approximating the opposite continent of America, it has been observed, they take a course between north and west. Ships, therefore, bound to the Cape of Good Hope, always avail themselves of this information.

They arrived under the equator about eleven o'clock on Sunday the 18th of November; and Sir Erasmus Gower permitted the ship's company to indulge themselves in the ludicrous ceremony commonly observed when crossing the line. On this occasion, a sailor was dressed up in a manner to imitate the God Neptune, holding in his hand a trident, his garments

dripping wet with the element he is supposed to command. He stood at the ship's head; the embassador, Sir Erasmus Gower, officers, and passengers, being all assembled on the quarter-deck, and demanded in an audible voice the name of the vessel thus encroaching on his dominions. An answer being given from the quarter-deck, Neptune, with his attendants, fantastically accoutred, advanced with solemnity towards them, and presented his excellency with a fish, recently caught, as part of the produce of the deity's domains. His godship was treated with respect, and received for himself and companions the accustomed silver offerings from those who had before crossed the line, but which were rigorously exacted from others who had not, under the penalty of going through a ceremony more ludicrous than agreeable.

To keep up the charter, however, some noviciates are always marked out as victims for the ceremonial. It consisted of an ablution; generally performed in one of the ship's boats, filled with water, into which the party is soused, blindfolded; and after he has received a good ducking, he is lathered, not too cleanly, and shaved, not very tenderly, by Neptune's tonsor, with a wooden razor: and that in so solemn, and, apparently, scientific a manner, as to excite, in the by-standers, broad grins, and convulsive laughter. A hearty meal, accompanied with music and exhilirating libations to Bacchus, concluded the amusement.

The equator was crossed in the twenty-fifth degree of western longitude from Greenwich, with a fresh breeze from south-east. Nothing remarkable occurred in the passage from St. Jago. Few birds were seen, and few fish caught. A shark was harpooned, which, on dissection, was found to contain no lungs. A dolphin was hauled on board; and displayed, in the agonies of death, its inherent property of often changing its colour.

By heaving the deep sea-lead, in latitude twenty-two degrees south, longitude forty degrees thirty-four minutes west, soundings were discovered; and on Saturday the first of November, the Lion anchored in the harbour of Rio de Janeiro, in fifty fathoms water, so that the passage from England to this place, including nineteen days stay at Madeira, Teneriffe, and St. Jago, was performed in one day less than two months.

The harbour is capacious, and convenient for commerce. Its shores abound with villages and plantations, terminated by an amphitheatre of mountains, whose summits are covered with trees.

The city of St. Sebastian, also called Rio, is situated four miles to the westward of the harbour; in the middle of which is the palace of the viceroy. A benedictine convent, and a fort, are on the extreme point jutting into the harbour, opposite to which is the Ilheo dos Cobras, or Serpent Island. Upon this island are a dock-yard, magazines, and naval store-houses; and, around its shores, convenient anchorage for shipping.

Rio has lately undergone considerable improvements. In many parts the houses are built of hewn stone. The streets are straight, and well paved; and similar artizans reside in the same street. An aqueduct, of considerable length, brought over vallies by a double row of arches placed one above the other, supplies the fountains, situated in the squares, with water. A guard constantly attends the fountains to regulate its distribution; and a sufficient quantity of it is thence conveyed to the quay, through canvas hoses, for the use of the shipping.

The opulence and commercial importance of the place could not be more fully ascertained than by its shops, magazines, and markets; all of which abounded with every species of British manufacture; and the appearance of individuals indicated ease and comfort. The city had several public walks; and

buildings, both public and private, were increasing. There were many principal edifices built of granite, with which material was constructed a spacious quay, upon the beach, opposite to the palace.

The town is insalubrious from local circumstances, and the decisive influence of climate. It is situated upon a plain; and, except from the harbour, surrounded with hills, covered with thick forest trees. The air, thus confined, is rendered humid mornings and evenings. From this cause, as well as from stagnant water in marshes near the town, arise putrid and intermittent fevers: and the elephantiasis is not uncommon.

There are three convents for men, and two for women; none of them remarkable for religious austerity. The ceremonies of religion, however, were strictly observed; and an addition had been made to them, by the ringing of bells, and launching skyrockets, whenever any solemnities were performing in the churches.

All classes of society have an insuperable attachment to gaiety and pleasure. The lower order appeared abroad in cloaks; those of the middling and higher ranks always in swords. The ladies had their hair hanging down in tresses, tied with ribbands, and adorned with flowers: their heads were uncovered. They had, in general, fine dark eyes, and animated countenances; were fond of music, and their favourite instruments the harpsichord and guitar. A few of them shewed instances of extreme levity: and some of the men were accused of unnatural practices.

Plays, operas, and masquerades, were the innocent amusements of both sexes. A public garden, at one extremity of the town, by the sea-side, was the favourite attraction; where, after their evening promenade, they frequently partook of banquets, rendered more zestful by the accompaniment of music and the display of artificial fire-works. This garden was laid out, with much taste, in grass plots, shrub-

beries, and parterres; interspersed with shady trees, and arched alcoves decorated with flowers, jessamines, and fragrant plants. Towards the middle was a fountain of artificial rock work, ornamented with sculptural figures of two alligators, spouting water into a marble reservoir, in which aquatic birds, done in bronze, were sportively represented.

There was also a terrace of granite on that side of the garden next the sea, at the extremity of which were built two neat summer-houses. The cielings were ornamented with various designs; the cornices exhibited different species of fish and birds: and upon the walls were, ill executed, eight paintings, emblematic of the principal productions which raised the country to its opulence; among which were views of the diamond and gold mines, and the manner of working them.

Contiguous to the sea shore, and near to the town, was another garden, curious for a small manufacture of cochineal. It was supposed, that the insect which forms this dye at Rio, is not the same as that noticed by Linnæus, under the name of coccus cacti coccinelliferi, which is described as being flat on the back, with black legs, and tapering horns, or antennæ.

The insect of Rio is convex, with legs, six in number, of a clear bright red, in both male and female, and the antennæ moniliform, or bead-like. The colour of the whole body of the male is a bright red, the breast elliptical, and slightly attached to the head; the antennæ about half as long as the body. Two fine white filaments, thrice as long as the insect, project from its abdomen: and they have two wings, erect, of a feint straw colour.—The female, which has no wings, is of an elliptic form, and convex on both sides; its back is covered with a downy substance, resembling fine cotton. The abdomen is marked with transverse rugæ or furrows. The mouth is situated in the breast, having a brownish beak which penetrates the plant the in-

sect feeds upon. About twenty days after its birth, it becomes pregnant; and dies after bringing forth an innumerable offspring. The size of these is so minute as to be easily mistaken for the eggs of those insects. They remain without the least appearance of life for about the space of a day, then shew tokens of animation, and, soon after, move agilely over the surface of the leaf upon which they were deposited by the mother. In three or four days the downy envelopement, visible on the second day only through a microscope, appears to the naked eye; and the insect it covered increases rapidly in size till equal to a grain of rice. As they augment in bulk, they decrease in motion; and when arrived at their full growth, they are attached to the leaf in a torpid state.—This is the period at which they are taken from the plant for use: if suffered to remain, they would deposit their young, as before mentioned. Various cells, of a cylindric form, standing perpendicularly upon the surface of the leaf, are discovered among the clusters of these insects, enveloped in their cotton. These cells are the chrysalides or coccoons of the male. The wings, in their nascent state, make their first appearance out of them, and are perceptible about three days before the insect is in a state of completion or maturity. In that condition it enjoys its existence only three or four days, during which it impregnates the females.

The plant upon which this insect feeds, is, probably, the cactus opuntia of Linnæus: called at Rio, orumbela—a species of the cactus, or prickly pear.

The leaves of this plant are somewhat elliptical, and grow without stalks. They are thick and fleshy, having the upper side more planoconcave than the other. They rise immediately one from the other's edge, and also from the stem, armed with round and tapering prickles about an inch long. These plants, though they would extend to twenty, are prevented from rising above eight feet: this height being more

convenient to the manufacturer, and at which the juice of the leaves is supposed most nutricious. The young leaves are of a darkish green, but acquire, by age, a yellow cast; and their internal substance is of the same colour as the external.

Upon the cactus is found another insect, supposed to feed upon the coccus, or cochineal insect. It resembles, in its perfect state, a four-winged insect, called ichneumon; but is found, on close examination, to be a fly with only two wings. The larva, or caterpillar of this fly, is with difficulty distinguished from the coccus; it insinuates itself into the cotton in which the latter is enveloped. When this fly is prepared to change its skin, it leaves the cotton, comes upon the leaf, and quickly increases in size, and changes its colour. In a few days, then, it becomes inactive; but quickly after, it contracts its wings with violent agitation, and deposits a globule of pure red colouring matter. It next suspends itself upon the prickles of the leaf, and is metamorphosed into a chrysalis, out of which issues, shortly, the perfect fly.

The conversion of the insects into cochineal is a simple process. They are put into a flat earthern dish, and placed, alive, over a charcoal fire, and par-roasted very slowly, till the down upon them disappear, and the aqueous juice of the animal be entirely evaporated. But, during this process, they are to be constantly stirred about, with a tin ladle, to prevent absolute torrefaction, which would reduce the insect to ashes, and thereby destroy the colour.

Within the harbour, and opposite to the town, is another species of manufacture, for converting the blubber of whales into oil, for which an exclusive privilege was given to a company, on paying one-fifth of its profits to government.

At Val Longo, in another part of the harbour, are warehouses for the reception and sale of slaves from Angola and Benguela, on the coast of Africa. Out

of twenty thousand, purchased annually for the Brazils, Rio took five thousand, of which the average price was twenty pounds sterling each. The Queen of Portugal receives sixty thousand pounds per annum into her privy purse, by a duty of ten thousand rees, on each slave, paid before they are shipped from Africa. The Brazils, it was computed, contained six hundred thousand slaves, born in Africa, or descended from those who were there; the whites were estimated at two hundred thousand.

The original inhabitants of Brazil are low in stature, muscular, stout, and active; of a light brown complexion; straight black hair; little beard; long dark eyes, but with tokens of intellect. They entertained an implacable antipathy to the invaders of their country; they shun the settlements of the Portuguese, but massacre individuals, without remorse, wherever they are found scattered or unprotected.

The forest before mentioned, besides abounding with palms and mastic wood, mangoe and gouyave trees, contained many other vegetables never before observed. A Franciscan friar, who resided at Rio, had undertaken a description, in a botanical work, to be called *Flora Fluminensis*.

On a stream, close to the forest, was erected a corn mill, used by them, worthy of being described from its simplicity of construction. "A wheel, a few feet only in diameter, was placed horizontally, much below the current of a stream, as it fell from a steep bank, and was received in hollows, ten or twelve in number, so obliquely scolloped into the upper rim of the wheel, as to impel it to a quick rotatory motion; while its upright shaft, passing through an opening of the centre of an immoveable mill-stone, above the wheel, but of a narrower diameter, was fixed to a smaller mill-stone, which, forced round by the motion of the wheel and dependent shaft, crushed between it and the larger stone beneath, the grain insinuated between them from a

hopper. Thus that effect was produced by the mean of one wheel only, which is generally the result of a much more expensive and complicated machinery. It it said that a similar mill is in use in the Crimea."

The fertile valley of Tijouca excited notice. It was irrigated by a pure stream, which, on its first entrance, was precipitated down a steep and broad rock of granite, forming a magnificent cascade. In the space of a few square yards—indigo, coffee, manioc, cocoa or chocolate trees; sugar canes, plaintains, and orange lime-trees—all grew promiscuously. The same articles, with the addition of rice, pepper, and tobacco, were produced in other districts. The vine also flourished; but the grape is prohibited from being pressed.

The whole of the Brazils is divided into eight governments; the revenue is estimated at about one million sterling; of which one third was consumed in the expences of administration. The principal seat of government, and chief mart for commerce, was formerly at Bahia dos Todos os Santos; but the discovery of the diamond and gold mines, within a hundred leagues of Rio de Janeiro, caused its removal to this place, whose governor has the title of Viceroy.

A late prohibition had prevented the people at Rio from working up the gold even in their own mines; and the tools used by the artificers seized and confiscated. The people complained heavily of taxes; they were so severely felt by those in the interior provinces, that, by carriage and transit duties, a bottle of port wine cost the consumer ten shillings sterling.—These, and other hardships, led, not long since, to a conspiracy against the parent country, in which were concerned clergy as well as laity, and some of the principal officers of the government there. Their views, however, were happily discovered, and timely prevented. Only the chief conspirator re-

ceived capital punishment: the rest were banished to the African settlements.

Rio is protected by several small forts and batteries so detached as to impede the progress of an enemy. Its military establishment consists of, including two battalions of disciplined militia, ten thousand men: exclusive of a numerous undisciplined militia, mostly in the city and its vicinity.

The fort of Santa Cruz was the chief defence of the harbour. It mounts twenty-three guns towards the sea, and thirty-three to the northward and westward; and is flanked by batteries to the eastward and westward. The city of Rio depended mostly for protection on the works erected on Serpent Island. The length of this is about three hundred yards; and mounts forty-six guns, facing different points of the compass.

If the political state of Rio should pass without animadversion, its natural appearance cannot fail to attract notice, whether it be contemplated in its harbour, mountains, woods, or rocks.—Its productions flourish on a grand scale, like a prolific garden cultivated by the careful hand of its owner.

The anxious desire his Excellency had to attain the place of his destination, hurried him on board before he was quite recovered from an indisposition he had at sea; and as soon as the two ships had completed their wood and water, they weighed their anchors, and on the seventeenth of December, 1792, proceeded on the voyage.

## CHAP. VI.

*Passage to the Southern Part of the Atlantic, and of the Indian Ocean. View of the Islands of Tristan d'Acunha in the former, and of those of St. Paul and Amsterdam in the latter. Entrance into the Straits of Sunda. Visit to Batavia and Bantam, in the Island of Java. View of the Southern Extremity of the Island of Sumatra. Passage through the Straits of Banca to Pulo Condore.*

In order to secure the trade winds, the Lion and Hindostan took a southerly course from Rio, till they got into the thirty-seventh degree of southern latitude, where the prevailing winds are chiefly westerly, favourable to ships bound to Asia. In this track tempestuous weather is frequent, and the squalls sudden and violent; every possible precaution was, therefore, taken to guard against danger.

The navigation was continued in this parallel for some days, with a desirable breeze from the westward; and on the thirty-first of December, 1792, the islands of Tristan d'Acunha hove in sight. Only the largest bears that name; the others are subdistinguished by the appellations of Inaccessible and Nightingale Islands.

Inaccessible is a high bluff, about nine miles in circumference. It has a very forbidden appearance, and may be seen at the distance of twelve or fourteen leagues. Its latitude is thirty-seven degrees nineteen minutes south; its longitude eleven degrees fifty minutes west from Greenwich.

Nightingale Island is irregular in form, with a hollow in the middle; and is seven or eight miles in circumference, with small rocky isles at its southern extremity. Its latitude is thirty-seven degrees twenty-nine minutes south: its longitude eleven degrees

forty-eight minutes west, and may be descried at seven or eight leagues distance.

The land of Tristan d'Acunha is exceedingly high, discoverable at the distance of twenty-five leagues. It seems about fifteen miles in circumference. Towards the north part of this island, there is an elevation a thousand feet perpendicular from the sea; then commences a level, or, in the sea-phrase, a table land, extending to the centre of the island; and afterwards arises a conical mountain, not very dissimilar to the peak at Teneriffe, as seen from the bay of Santa Cruz.—Having previously examined the shore, and taken soundings in boats, the Lion stood in, and anchored in the evening, on the north side, in thirty fathoms water.—When the ship was at anchor, she was overshadowed by the dark mass of that portion of the island whose sides seemed to rise like a moss-grown wall immediately from the ocean.

This island was explored on account of an accident.—A sudden gust of wind started the Lion's anchor, and obliged her, for safety, to put to sea. But from good meridional observations, and by the aid of accurate time-pieces, the spot where the Lion lay was determined to be thirty-seven degrees six minutes south latitude, and eleven degrees forty-three minutes west longitude: which is a position two degrees east of the longitude as laid down in charts. The variation of the compass was seven degrees westward from the pole. Fahrenheit's thermometer stood at sixty-seven degrees.—The sword-fish; whales of every species; sea lions and seals; penguins and albatrosses; frequent this coast.

These islands are fifteen hundred miles distant from any land to the westward or northward of them. Being in the general track to China, and to the coast of Coromandel, by the outer passage, they merit particular examination. In circumstances requiring dispatch, a vessel might come from England to Tristan d'Acunha without stopping by the way, and thence proceed to India or China. A settle-

ment, indeed, has been twice in contemplation. One project was, to make it a mart for the light manufactures of Hindostan, suited to warm climates, for the silver of the Spanish settlements in South America; the other, as a proper situation for drying and preparing the furs of sea-lions and seals, and for extracting the spermaceti of the white or long-nosed whale, and the whalebone and oil of the black species.

In the passage from the above island, the Lion crossed the meridian of London on the 5th of January, 1793. When in the latitude of forty-one degrees south, they met with strong breezes. The wind was from north-west to south-west; the former producing fogs and rain, the latter clear and cold weather. During the whole way only one gale of wind was experienced, which was to the eastward of Madagascar. It began from the north-east, and ended in the south-west, blowing violently in all directions. The ship laboured much, and rolled gunwale under water.

Approaching within thirty leagues of St. Paul and Amsterdam, a few seals and penguins made their appearance. A current was also observed to set due-south, at the rate of a mile an hour. The weather was now moderate and warm; for though in the month of January, it should be recollected that in this hemisphere it is a part of summer.

On the 1st of February were perceived the islands of Amsterdam and St. Paul. They are in the same degree of longitude, but at seventeen miles distance. The Dutch circumnavigators, as well as Captain Cook, give the name of Amsterdam to the northern, and of St. Paul to the southern; but most others reverse them, calling the southernmost Amsterdam.

As the ship drew near the shore, two human figures were seen moving upon the land. They made and waved a signal, by tying a handkerchief to a pole; and the rational conjecture arose, that they were persons who had suffered shipwreck. The Lion an-

chored in twenty-five fathoms water, about a mile from shore, manned a boat, and sent her into the bason to those men to learn their history, and to offer them assistance. There were five men in all; for by this time three others, their companions, had joined them; two of them were English, and the rest French; one of these, the chief or superintendant, was intelligent and communicative: they came last in a trading vessel from the isle of France, and had been left there purposely to provide a cargo of twenty-five thousand seal-skins, of which they had already procured eight thousand, for the Canton market. This vessel was gone to Nootka Sound, on the north-west coast of America, with a view of bringing a quantity of sea-otter skins to China, and afterwards of calling for the cargo of seal-skins at this place, to be likewise carried to China; proceeding thus alternately between Nootka and Amsterdam island.

The seal of Amsterdam is the *phoca ursina* of Linnæus: the male is much larger than the female; the weight of these is from seventy-five to a hundred and twenty pounds. During the winter, numbers of sea lions (*phocæ leoninæ,*) some eighteen feet long, crawl out of the sea, making a prodigious noise. Whales abound here in the winter season; but in the summer they seek deeper water.

The seal catchers had constructed a rude hut upon the border of an elliptic cove, or bason: the bank of this cove, next the sea, was low, and had recently been divided in the middle by a shallow communication with the sea, for none such existed in 1697, when this island was visited by Van Vlaming. Close to this now interrupted causeway, the land rises on each side, suddenly from the bason, and is continued round it to the height of seven hundred feet. In divers parts of the slanting sides of this funnel near the water's edge, and in the causeway which divides it from the sea, were discovered several springs of *hot water*. In one of these springs was immersed Fah-

renheit's thermometer, which in the air stood at sixty-two degrees, ascending immediately to one hundred and ninety-six. In another it rose to two hundred and four degrees; and the bulb of the thermometer being applied to a crevice, from which issued a small stream, it ascended, in less than a minute, to the boiling point or two hundred and twelve degrees. One of the gentlemen of the party, with a hook and line, caught some fish out of the bason, and let them drop into the hot spring adjoining, where, in fifteen minutes, they were boiled fit for eating.

Large beds of mosses (*marchantia* and *lycopodium*) were growing exuberantly in some places, in the vicinity of these hot springs; in others were observed veins of vitrified matter *burnt* but not *fused;* and beautiful pieces of zeolite were discovered in some of the rocks. Several craters were also perceived; the largest was on the eastern side of the island, now full of water, exceeding in diameter those of Etna or Vesuvius. These, and other appearances, confirmed the idea that the island of Amsterdam had experienced subterraneous fires, evinced by various volcanic eruptions.

This volcanic inflammation is perceptible, in the day-time, only by its smoke; but at night, from the ship's decks, were seen, upon the heights of the island, several coruscant fires bursting out of the crannies of the earth, resembling, in some respects, but exceeding the nightly flames issuing from ignited coal-pits.

Except one, all the springs or reservoirs of hot water were brackish. One spring, whose source is in the high ground or ridges of the crater, is a pretty strong chalybeate; and small incrustations of ochre were seen adhering to the sides of the rock whence it issues, as well as into the cavity into which it falls. This is the water used by those five seamen, who are reconciled, by habit, to its taste; and feel no inconvenience whatever from its use,

This island lies in thirty-eight degrees forty-two minutes south latitude, and seventy-six degrees fifty-four minutes east longitude. The magnetic variation, in the great crater, was nineteen degrees fifty minutes westward of the north pole. The length of the island from north to south rather exceeds four miles; its breadth from east to west about two and a half miles, and its circumference eleven miles, comprising a surface of eight square miles; nearly the whole of which was covered with a fertile soil.

Among the different kinds of fish with which this island abounded, none was more relished than a species of the cod, whether eaten fresh or salted. Cray-fish were caught upon the bar by hand; and at the ship's anchorage in baskets. That species of the penguin, partaking, by its scale-like feathers and fin-like wings, of the fishy tribe, called by Linnæus chrysocoma, is found here in abundance.

With respect to birds, there was a less variety. Of the larger were several species of the albatross, and the fierce and voracious black petrel, the *procellaria equinoctialis* of Linnæus: this bird is a more fatal enemy to the blue petrel of Amsterdam, the *procellaria forsteri*, than to the albatross. It eviscerates the former, and devours only the heart and liver; many were found upon the island in this state. But the most beautiful of the feathered tribe was the silver bird, or *sterna hirundo*, the size of a large swallow, with a forked tail.

The blue petrel, about the bigness of a pigeon, and the fish caught by angling, constituted the principal food of the seal-catchers, the only inhabitants of the island: but for these they must have perished. They had been here since the month of September, and were left with a scanty stock of provisions: they were supplied with many esculent roots from the Lion and Hindostan; and besides potatoes, the gardeners planted around their hut various kinds of vegetables, which

may not only prove a seasonable relief to them, but also to their successors upon the island.

The island of St. Paul lay in sight, and to the northward. It presented no very high land nor conic risings. Report says it abounds with fresh water; but there is no good anchorage near it, nor any safe or convenient landing-place. The ships got under way, and on the evening of the 2d of February lost sight of both islands.

For some time the squadron sailed in high southern latitudes; but a favourable breeze springing up, they took an oblique course to the north-east, as well to get into the Straits of Sunda, as to have the better chance of falling in with ships homeward-bound. The sun's vertical heat was moderated by fresh breezes; the tropical birds then made their appearance; and several water-spouts, some resembling jets d'eaux, others very similar to the blowing of a whale, presented themselves to view, and seemed to reach the lowered clouds.

The scurvy now began to affect the crews of both ships, notwithstanding the best means taken for the preservation of their health. Marinated cabbage, called sour crout, was mixed with their food, and a beverage administered to them from the essence of malt.

The Lion and Hindostan having spread more than usual, the better to accomplish their wishes, now separated, for the first time since they left England; but the rendezvous, North Island, had been previously appointed.

On the 25th of February, 1793, Java head, the most westerly point of the island of that name, was discovered by the officers of the Lion; and, not long after Prince's Island, which is at the entrance of the Straits of Sunda: these Straits are formed by the proximity of the south-east part of the great island of Sumatra to that of the north-west of Java. They

are interspersed with a number of small isles, rich and gay in appearance.

The two great islands, Sumatra and Java, are low, and marshy towards the shore, but afterwards rise gradually to the interior of the country; affording every variety of landscape. In the middle of the Strait is a small island, named, from its situation, Thwart-the-way; and two smaller, called appropriately Cap and Button. These have steep and naked sides, but most of the others are level, founded upon beds of coral, and covered with trees.

A white sandy beach encompasses some of the smaller islands, which have numerous thickets close to the water's edge; and on the outside are shoals, upon which multitudes of little aquatic animals are sagaciously busied in constructing calcareous habitations for their protection. These gradually emerging out, and rising above the surface of the water, by the adventitious adhesion of floating vegetable matters, plastically giving birth to plants and trees, either become new islands, or augment those already produced by the same means.

The Lion found the Hindostan at anchor in North Island, one of these coralline productions. Near the mouth of the Straits she had fallen in with one of the East India Company's ships, returning from China. She had brought dispatches from the company's commissioners at Canton, addressed to the embassador; and after waiting ten days for his excellency at Batavia, were left there for him.

On receiving this information, both ships immediately shaped their course thither, and the passage was productive of much pleasure. The sea had scarce an undulation; and clusters of coral islands sprang in view. Quantities of zoophites were dragged from the sea, some of a fleshy, and some of a leathery texture. The corals were of vast masses, and of numerous species, the *madrepora*, *cellipora*, and *tubipora;* of various shapes, flat, round, and branched; and of the

several colours, blue, white, and brown; but none red, except the *tubularia musica*.

On the 6th of March the ships anchored in Batavia road, situated in six degrees ten minutes south latitude, and a hundred and six degrees fifty-one minutes east longitude; the variation of the compass about half a degree to the westward of the Pole.

The road is very capacious, and has a safe anchorage for shipping, it being protected from any swell by a circular range of islands. Several Chinese junks were riding at anchor; and the vast quantity of Dutch vessels lying before the city, announced it as their chief place of trade, as well as their principal seat of government.

Notwithstanding the embassador's mission had excited great alarms, his excellency first received the compliments of the Dutch government on board, and was afterwards flattered on shore with distinguished honours.

His excellency explained away their apprehensions by assuring them, that the administration of Great Britain had offered to the States-General its mediatorial assistance, if necessary, on behalf of their trade. The council, who had been ignorant of this proffer, acknowledged their intentions of counteracting the embassy; and resolved to send immediate instructions to Canton, for uniting with, instead of opposing the efforts of the embassador; whence it was expected, that every other nation trading to China would ultimately be benefited.

The dispatches which his excellency received here from the commissioners of the East India company at Canton, portended his honourable reception at the court of Pekin. The commissioners stated that, "having applied to two of the principal merchants to solicit their audience from the fouyen, or governor, of Canton, in the absence of the viceroy of the province, in order to deliver a letter to him from the chairman of the court of directors of the East India

company; those merchants readily guessed that the letter related to the embassy, of which the rumour had spread among them; and expressed some degree of apprehension, lest the measure might, in its consequences, affect the trade, property, or personal security, of the native merchants at Canton; but that the commissioners assured them that it would rather be productive of good than of ill consequences to all the trading part of the community; that the motives of the embassy were anxiously enquired into, on the part of the officers of government, as a preliminary step to the audience required by the commissioners, who declared that nothing farther was intended than to effect a stricter friendship between the courts of London and Pekin, and an increase of that intercourse, which had been carried on for so many years, to the advantage of both nations; that this explanation was probably satisfactory, as the day for their reception was fixed at an earlier period than could have been expected, from the procrastinating and superstitious temper of the Chinese; that a message afterwards, however, was sent by the governor to learn the rank and situation of the person from whom the letter came; and whether he was a servant of the king, and held an office under his seal; that in answer it was said, that the letter, though not written by an immediate servant of the king, was sent to the viceroy with his majesty's knowledge, to announce the approach of his embassador to Pekin; that in consequence, however, of the letter not having been written by an immediate officer of the crown, nor to be delivered by persons in its service, but in that only of the company, objections arose to the intended form of their reception; but as any contest about ceremony might have been followed by a refusal to receive the letter, till an answer could be obtained from Pekin, which was a subterfuge which the hoppo or mandarine more immediately connected with Europeans, and interested in preventing representations of any

kind from reaching Pekin, betrayed a disposition of urging to the fouyen, it was determined to deliver the letter in any manner that might be prescribed. It became necessary, likewise, to communicate its contents; and it was with no small trouble and difficulty that the Chinese merchants, who were the only interpreters, could be brought to comprehend the particulars of the letter, and the real object of the embassy. The want of a competent linguist, and the necessity of encouragement to attain the Chinese language, under the obstacles to be encountered in such a pursuit, were, perhaps, never so apparent as on this occasion; and the English commissioners could not but lament the want of an interpreter of their own nation, capable of conceiving and rendering the spirit of the letter, and of carrying on with advantage a conference both delicate and important. That it ended, however, in a promise that the letter should be forwarded to the emperor; and the result made known to them through the Chinese merchants. That accordingly, some time afterwards, his imperial majesty's pleasure was published on the subject in an edict, declaring his satisfaction of the embassy; and giving orders that pilots should be properly stationed to conduct the ships in which the embassador and the presents from the King of Great Britain were expected, into the port of Tien-sing, or any other they might think more convenient, or should prefer." The commissioners added, that "the impression looked for from the embassy had already taken place on the officers of government at Canton. Less interruption to foreign trade, and a more ready attention to the representations of the commissioners, were very apparent; and the hoppo was already said to have in contemplation to abolish the extravagant charges at Macao, by which means one of the principal impositions on foreigners would be suppressed."

The Batavian government, on the communication

of these dispatches, in which they felt themselves interested, resolved to celebrate the anniversary of the birth of the Prince of Orange, Stadtholder of the United Provinces, with additional festivities, and increased splendour, to which the embassador and his suite were invited. A salute of twenty-one guns was fired from the Lion the 8th of March, on the occasion, and it was on that day his excellency first went on shore.

The entertainment took place at the house of the governor-general, a short distance from town; an avenue of trees, bordered by canals, led to the spot. On one side, the unexpected exhibition of the humours of a Flemish fair, arrested the time and attention of some of the guests; while, on the other, a drama was performing, by several Chinese actors, in a cart or pulpitum, said to be the original scene of dramatic representation. A grand ball preceded the banquet; and splendid illuminations and artificial fire-works were displayed in the garden.

The city of Batavia, situated amidst swamps and stagnated pools, independent of climate, and inattention to cleanliness, is, perhaps, one of the most unwholesome places in the universe. The morning sea-breeze ushers in noxious vapours, and the meridian sun deleterious miasmata. The wan and languid appearance of the people, and the obituary of the public hospitals, which recognized nearly a hundred thousand deaths within the last twenty years, are melancholy proofs of the assertion, and proclaim it, with justness, the grave of Europeans.

The acknowledged unhealthiness of Batavia, notwithstanding the inducement of a rapid acquisition of fortune, discourages Europeans from going thither, if, by any possible means, they can remain comfortably at home. This accounts for the preposterous unfitness with which offices and professions are filled and personated. There were two men in the place,

originally barbers; the one acted as clergyman, for the good of the soul, the other, as physician, for that of the body.

The season which contributes most to health, or, rather, which arrests or retards the progress of death, is from March to November. The sea breeze commences about ten o'clock in the morning, and remains till about four in the afternoon. A calm then succeeds till about eight, when the land-breeze sets in, and, except now and then a few intervening calms, is stationary till day-break; from which time till about ten o'clock, there is scarcely a breath of wind. During the Lion's stay in Batavia road, the thermometer was from eighty-six to eighty-eight degrees; but in the town it was two degrees higher.

Diseases of the teeth, which prevail in the northern parts of Europe, are strangers to the native Javanese, who principally subsist on vegetable food. But so capricious is mankind with regard to *taste*, that what would appear disgusting, if not disgraceful, to an European, *black teeth*, is with them considered as the standard of *beauty*. Accordingly, they sedulously paint their teeth all black, of the deepest hue, the two anterior ones in the middle excepted, and these they cover with *gold leaf*.—The operation is repeated, as often as is necessary, to keep them in that state; and they compare those to monkeys who preserve them in their natural colour.

The fortifications of Batavia, which at first view seemed to imply great strenght, would not, in Europe, be considered as formidable. And it should be observed, that one of the counsellers of the Indies, who had exerted his military talents to guard the settlement from external attacks, declared that their chief dependence was upon the havock which the climate and noxious air of the atmosphere were likely to make upon the enemy's forces.

The troops on the establishment were twelve hundred Europeans, of whom eleven hundred were infan-

try, the rest artillery.—There were, besides, three hundred volunteers of the town, not disciplined, formed into two companies. The irregulars consisted of enrolled natives of Java, who were never embodied, and of Chinese; in all very numerous. Add to this, every person who becomes a settler at Batavia, is compelled to take up arms in its defence.

The castle is constructed of coral rock, and the town wall, partly, of dense lava from the mountains in the centre of the island, not unlike that of Vesuvius. There is no stone of any sort discovered for miles behind the city of Java.—The marble and granite, used here in various edifices, are conveyed thither from China in vessels called junks. These sail from the ports of the provinces of Canton and Fokien, and are mostly laden with tea, silks, and porcelain.

The Dutch settlers in this place, acquiring wealth and influence under the company, neglect their former habits of industry and temperance, and too often sacrifice health, and sometimes life, to indolence and voluptuousness. Convivial pleasures, in particular, are carried to excess.—In many respectable houses, fish and flesh are served with tea and coffee for breakfast; very soon after this, gin, claret, Madeira, Dutch small beer, and English porter, are placed in the portico of the great hall; and pipes and tobacco served to every guest, with a brass jar to receive the phlegm. In this they are busied, with little interruption, till near the hour of dinner, which is one o'clock.

Just before dinner each guest is served with a bumper of Madeira wine, as a whetter or bracer: two men slaves attend for this purpose. Afterwards enter three female slaves; one holds a silver jar containing rose or common water to wash with—a second an empty silver bason, with a cover to receive the water after having used it; and the third has towels to wipe the hands with.—Other female slaves

wait at table, which is covered with a variety of dishes; but with stomachs so cloyed, little is received into them except liqueurs. A band of music, all slaves, play at a small distance, during the repast. Coffee immediately succeeds dinner, and soon after they retire to bed, consisting only of a mattrass, bolster, pillow, and a chintz counterpane, but no sheets; and the night dress, consisting of a muslin cap, and a long loose gown, is put on. If he be a bachelor, a female slave attends to fan him during his sleep. About six they rise and dress; drink tea; take an airing in their carriage, and form parties to spend the evening.

The morning meetings are seldom attended by the ladies. Most of these are descended from Dutch settlers, and their education has by no means been neglected. The features and contour of their faces are European; but their complexion and character Javanese. The tint of the rose is an alien to the cheek, while pale langour besets the countenance.—When at home they are clothed, like their slaves, in a red checkered gown, of cotton, descending to the ancles, with long wide sleeves.—The colour of their hair is mostly black; worn in plaits or tresses, fastened with a silver bodkin on the top of the head, like the peasants of Switzerland; they wear no head-dress; and their hair is occasionally polished with the oil of the cocoa-nut, and decorated with chaplets of flowers.

When abroad on morning visits, out on airings in their carriages, or engaged in parties on evenings, they dress splendidly in gold and silver spangled muslin robes, with their hair, unpowdered, adorned with a profusion of jewels. They are not solicitous to mould the shape, from fancied elegance, at the expence of ease; neither are they guided by any standard of fashion.

Every native lady takes abroad with her a female slave, handsomely dressed; who, on her mistress being seated, sits before her on the floor, holding in

her hand a gold or silver box, containing a pungent masticatory. It is compounded of areca nut, cardamom seeds, pepper, tobacco, and slacked lime, rolled within a betel leaf, and is in general used among the ladies.

If, when at public assemblies, the ladies feel themselves incommoded by heat, whether occasioned by their dress or nor, they withdraw, and change their costly robes for a loose attire.—The younger gentlemen follow the example, and substitute white jackets, often with diamond buttons, for their heavy formal vestments: and the elders of the council quit their periwigs and put on nightcaps.

The members of this government, but on these occasions, have always combined their personal gratification with the eastern policy of striking vulgar minds with reverential awe, by assuming external and exclusive distinctions. They, alone, for instance, are privileged to wear abroad, crimson velvet; to them only, one of the city gates is opened;—their carriages have distinguishing heraldic ornaments; and others, meeting them, must stop and pay them homage. They certainly do succeed in maintaining absolute power, not only over the descendants of the aborigines of the country, but likewise over the slaves imported into it, and the Chinese attracted thither in the hope of gain.

The native Javanese were formerly governed by as many petty kings as there were large towns; but their number has been diminished. At present, the Sultan of Mataram rules to the east, the King of Bantam to the west, while nearly the whole coast and effective power are in the hands of Holland. These people are represented fierce, proud, and barbarous; very remote from civilization. No attempt however is made to enslave their persons; and they find the Dutch government less tyrannic than that of others who share some portion of the sovereignty of the island with them. Those other sovereigns are the

descendants of foreigners who brought the Mahometan religion with them to Java; but there are a few mountaineers excepted, who have maintained their independence and their faith, and with other articles the transmigration of souls.

Those Mahometan princes, being all despots, do not rule in the hearts of their subjects. According to Dutch accounts, the tyrannic sway of the emperor is supported by prodigious armies throughout his territories, and by a very considerable female guard about his person. These heroines are trained to a domestic, as well as to a military life, among whom many, from mental accomplishments, are the companions as well as attendants of his imperial majesty. If the same accounts be correct, that the number of female births of Java surpasses that of the males, the singular institution above mentioned may have originated from the facility of obtaining recruits.

The island of Celebes, to the eastward of Borneo, and some other eastern islands, supply Java with slaves; and though a change of master may not have generally aggravated their condition, yet some among them, who, before they were made captives, lived in a state of independence, have been known to take offence on the slightest occasions, and to avenge themselves by assassination. Under this apprehension it is, that female slaves are preferred in Batavia, for every use to which they can be applied, and their number, of course, exceeds that of the males.—The method of wreaking their revenge is this: In order to possess themselves of artificial courage, they swallow a more than ordinary dose of opium, which soon renders them frantic and desperate. In this state, they not only stab the objects of their hatred, but, in their phrenzy, sally forth and assail, in the same manner, every person they meet, till self-preservation renders it a duty to destroy them. Indeed, such is the moral turpitude of mankind, that instances are not more frequent among the slaves, than among the

free natives of the country, who, without prudence to guide them in the ordinary affairs of life, or fortitude to bear them up against its common accidents—from the anguish of losing their friends, or their money or property, madly adopt the same remedy, and produce the like dreadful effects.

The Chinese, too, are fondly attached to gaming as well as opium; but by instilling into their minds cautious principles, the same latent disposition in them is curbed, and they have been deterred from lapsing into similar excesses.—However they may be disposed, they are more capable of forming designs against the government. They are said to be now as numerous as they were in 1740, when they joined in a revolt against the Europeans, under the command of a pretended descendant of the Emperor of China; but they were repulsed and disarmed. The alarm, notwithstanding, was so great that, under orders of the Dutch, twenty thousand Chinese, men, women, and children, were massacred, and their effects seized. The directors of the company in Holland execrated the horrid deed. They feared the Emperor of China's indignation; and apologizing on the ground of necessity, were agreeably surprised when he returned them the following answer; that "he was little solicitous for the fate of unworthy subjects, who, in the pursuit of lucre, had quitted their country, and abandoned the tombs of their ancestors."

They appear, however, to have the highest veneration for such of their ancestors as have paid the debt of nature. A cemetery is appropriated for their remains, and they spare no expence in erecting monuments to their memory.—The head of every family, not a pauper, has a separate vault; and when a Chinese of respectability dies, the melancholy event is announced to the surviving relatives. The body of the deceased is washed and perfumed; and after putting on its best apparel, it is seated in a chair, before which the wives, children, and relations, pros-

trate themselves, and weep bitterly. A table, spread with fruit and various dishes, with a desert, is laid before the corpse, and wax figures placed on each side, as its attendants.—On the third day the corpse is put into a coffin, and placed in one of the best apartments, hung round, on this occasion, with *white linen*, the colour of their mourning. An altar is raised in the middle of the room; they place the portrait of the deceased upon it, and burn incense near it. The sons, dressed in coarse white linen, stand near the coffin, and manifest every token of sorrow, while the mother and female relatives are heard to bewail behind a curtain.

On the day of interment the whole family assembles, and the corpse is conveyed to the grave with great pomp and solemnity. In the first procession are persons bearing images of men and women, relatives of the family; images of various animals; and wax tapers and incensories. Next follow the priests, accompanied with instruments of music; and then the corpse, borne upon a bier, attended by the sons of the deceased, clothed in white, and inclining upon crutches, as if unable, from sorrow, to support themselves erect. The female relatives are carried in chairs, encircled with white silk to conceal them from view; but their lamentations are uttered aloud; and other women, trained to mimic sorrow when the heart's not sad, are hired to howl, shriek, and groan, as is the custom in some parts of Europe.

The Chinese, from their industry and ingenuity, have rendered themselves indispensably necessary to the Dutch, who acknowledge the settlement could scarcely subsist without them. Their residence, at Batavia, is in the suburbs; their houses are low, built mostly of wood, crammed with people. Every sort of mechanical employment is done by them; in town, also, they become clerks, agents, or hucksters, and in the country, farmers, particularly in the cultivation of the sugar-cane.

The shops at Batavia, resembling those of brokers dealing in second-hand articles, were thinly supplied with British merchandize, very unlike those at Rio de Janeiro; a plain proof that the interior inhabitants of Java are either unable or not willing to purchase costly manufactures. But there are spacious magazines for depositing the rich products of the Molucca or spice islands, exported hence to all parts of the world; besides sugar, pepper, coffee, and arrack, the produce of the place.

The Dutch company, from an inordinate thirst for gain, suggested the idea of monopolizing the whole of the spice trade to themselves. To effect this, as well as to prevent the markets from being overstocked, if reports are to be credited, they employed and established a set of men under the appellation of *extirpators*, whose sole business was to eruncate, in whatever places they could penetrate, a few spots excepted, every tree which bears those valuable productions; hoping thus to secure to themselves the exclusive sale and property of these articles. These extirpators had torn up and destroyed the nutmeg-tree at all the Moluccas, Banda excepted; at which last place, a subsequent volcanic eruption had nearly compleated what they had left unfinished, by burying, in its ashes, or otherwise materially injuring, every vegetable production of that island.

The medical garden at Batavia is now well stocked with the various spice-trees, and the delegates are become more liberal in their ideas. A nutmeg plant, and a nut, in a state supposed capable of germination, were presented to a genleman in the embassy, who intended them for his majesty's botanic garden at Kew, but an untoward accident in the passage frustrated the design. The nutmeg tree is a beautiful vegetable; its fruit, when fresh, is nearly the size of a common nectarine. Between the shell and the outward rind is a reticulated membrane, or partitioned skin, which, when dried, is the mace: the

nutmeg, soft in its original state, is the kernel within the shell. There is also a clove-tree in this garden. The germ of its fruit, with the flower cup which contains it, is the clove. The cinnamon-tree is known by the three nerves, which uniformly divide the inner surface of its oval leaf, as well as by the fragrancy which is diffused from brusing any of its leaves or branches, corresponding to the odour of its bark. The camphor-tree is also here; so is the pepper, which grows in clusters, like the grape, but of a much smaller size. The betel is a species of the pepper plant, the leaf of which is chewed by most of the southern Asiatics; and serves for the inclosing of a few bits or slices of the areca, thence erroneously called the betal nut, resembling in form and taste, but smaller when dry, the common nutmeg. The areca nut-tree is the smallest tribe of palm-trees, but next in beauty to the mountain cabbage-tree in the West Indies.

A tree was said to be growing in the territories of one of the princes of Java, so venomous and destructive as to poison persons by its exhalations at some miles distance. This was the supposed *Upas*, of which the above account was given by Foersch. But it was nothing but a bold attempt to impose on the credulity of the public. Enquiries were made concerning it, and no such tree is known to exist in the island. In a dissertation written expressly by a Dutchman, the story is refuted. An opinion, however, prevails at Batavia, that there is in that country a vegetable poison so subtile, that being rubbed upon the daggers of the Javanese, it renders a wound incurable. Indeed, Dr. Gillan was informed by one of the keepers of the garden, that there was in that collection a tree which distilled a poisonous juice; but the knowledge of this was kept secret, lest, by being communicated to the Javanese, they should turn it to an improper use.

The whole country is richly stored with the choicest fruits, which, like all places within the tropics, are

ried off their vessels. They were, besides, threatened with an invasion from the isle of France, at a time when they knew the place was not in a proper condition for defence, half the troops destined for this purpose being ill in the hospitals; and, lastly, commissioners were expected from Holland for the reform of abuses; whose presence was as much deprecated as that of an enemy.

Notwithstanding these gloomy prospects, the embassador and his suite were treated with every mark of attention and respect. His excellency being indisposed, was pressed to remove from town to a healthy spot amidst the mountains; but he waved the invitation, and left Batavia on the seventeenth of March, in order to proceed to the Straits of Banca.

In the passage from Batavia, the Lion touched upon a small, unnoticed, sunken rock, whose apex was three fathoms under water, but around its base were six or seven. This circumstance pointed out the necessity of such a tender as the Jackall; and as, by the dispatches which the embassador received at Batavia, the company's commissioners at Canton had been disappointed in their intentions of sending two small vessels to precede the Lion and Hindostan, in order to sound the depth of water in unknown or suspected places, his excellency sent back to Batavia, and purchased one which the service required, and called her, out of respect to his royal highness, *the Duke of Clarence.*

After this they steered towards the opening which leads to the Straits of Banca. The western side of these Straits is formed by the eastern side of the island of Sumatra, whose southern extremity forms the northern side of the Straits of Sunda. North Island, the rendezvous fixed, in case of separation, is situated nearly in the angle made by those Straits abovementioned, having at the same time a view of the Straits of Banca; and the Lion had not long returned to this spot, ere the Jackall came in sight. She had

unfortunately arrived, both at Madeira and St. Jago, a few days at each place after the Lion had quitted them. She had experienced many hardships in the passage; but was soon ready to proceed to sea.

The monsoon being adverse, and many of the seamen sickly, the ships kept moving about the coasts of Java and Sumatra, to discover the coolest and healthiest spots. During this period observations were taken, in order to ascertain the accuracy of former charts of the northern entrance into the Straits of Sunda, from which the latitude and longitude of the following places were determined:

| | South Latitude. | East Longitude. |
|---|---|---|
| Pulo Salier | 5° 50′ 30″ | 105° 56′ 30′ |
| Nicholas Point | 5 50 40 | 105 54 30 |
| Java Head | 6 47 | 104 50 30 |
| The three Sisters | 5 42 | 105 41 36 |
| Thwart-the-way | 5 55 | 105 43 |
| North Island | 5 38 | 105 43 30 |
| Angeroe Point | 6 2 | 105 47 30 |
| Cap | 5 58 30 | 105 48 30 |
| Button | 5 49 | 105 48 30 |

There were two caverns discovered in Cap island, which ran horizontally in the side of a rock. In these were many of those bird's nests so much valued and sought after by Chinese epicures. They are built by the small grey swallow, of which great numbers were seen flying about. These nests not only adhere to each other, but likewise to the sides of the cavern, in almost uninterrupted rows. They are composed of fine filaments, united by a tenacious matter; and are not unlike those gelatinous animal substances seen floating upon every coast. The swallows feed on insects, and their nests, which occupy them two months to build, are prepared from the choicest remnants of their food. They lay only a couple of eggs, which are hatched in about fifteen days: and the

proper time for taking the nests is when the young ones are fledged.

These nests, not known at the southern extremity of Sumatra, form an object of trade with the Javanese, who go regularly three times a year to take them; but it is a very perilous enterprize. The natives of this part, as well as at most of the islands in the Chinese seas, are distinguished by the name of Malays; remarkable for vindictiveness, indolence, and indocility. They are low in stature; have broad faces, wide mouths, brown complexion, and long black hair. Though half naked, for their dress extends no lower than their waist, they never go abroad without being armed with a criss or dagger, with its point imbued in a poisonous juice.

An artificer belonging to the embassy, who went on shore here with a small bundle of linen to wash, was murdered by some of the Malays. Many of the southern parts of Sumatra are subjet to the king of Bantam, to whom it was determined the murder should be made known. This was done through the Dutch chief; and some time after intelligence was received, that his Bantamese Majesty had discovered one of the men, and had caused him to be executed.

The squadron weighed from North Island, and proceeded to Nicholas Bay; an easterly course from which leads to Bantam, formerly a place of great trade, and the principal eastern rendezvous of shipping from Europe. But after the Dutch had conquered the neighbouring province of Jacatra, and built Batavia; and that the English removed to Hindostan and China, commerce took a new course, and Bantam soon sunk into insignificance. The power of its sovereign declined with the loss of its trade. When at war with other princes of Java, he solicited the assistance of the Dutch, since which period he became, as it were, their captive. The palace he resides in, is within a fort garrisoned by Batavian troops. The commander does not receive his orders

from the King of Bantam, but from a Dutch chief or governor, who resides in another fort adjoining the down, nearer the sea-side.

Contiguous to Nicholas Bay was a convenient rivulet for watering; and at a short distance from the shore a village, where buffaloes, poultry, fruit, and various esculent vegetables, were cheap and abundant. Fresh provisions were served daily to the Lion's crew. Here, as well as at Angeree Point, many of the convalescents were sent on shore for air and exercise. Indigo was manufactured at this place from a leaf which grows in the neighbourhood.

Two ships, which arrived from China, brought a confirmation of the former favourable accounts. Soon after, the wind began to shift, and the Lion got under way; but from very light breezes little advance was made, and the anchors were often let go to prevent the ships from being driven back. On the 26th of April the current changed its direction to the E. S. E., and the next day N. E. half a mile. While the squadron was at anchor within three miles of two islands, called the Brothers, their latitude, by observation, was found to be five degrees eight minutes south, and longitude one hundred and six degrees four minutes east. Whales were discovered about this place for the first time since they had left the island of Amsterdam.

On the 28th of April, the hills on Banca island were seen; and on the 30th the ships came to anchor close to its western shore, near the three Nanka isles. The island of Banca is celebrious throughout Asia for its tin mines, the annual profit of which, to the Dutch Company, is estimated at a hundred and fifty thousand pounds.

The ships left the Nanka isles on the 4th of May, and on the 10th crossed the line, in longitude one hundred and five degrees forty-eight minutes east. A current was discovered here which set E. N. E. twenty-seven miles in the twenty-four hours.

Pulo Lingen, no inconsiderable island, is crossed

by the equinoctial line. It has a mountain in its centre, terminating in a fork, like that of Parnassus, and called by seamen asses' ears. In this passage new islands constantly sprang in view, displaying a variety of shape, size, and colour; some solitary, others in clusters; some with tall trees growing, others mere barren rocks, tenanted by innumerable birds. The weather was often squally with rain, and thunder and lightning were not unfrequent. The thermometer in the shade was from eighty-four to ninety degrees, the heat suffocating and intolerable. The sea was very shallow, its depth seldom exceeding eight fathoms, and the squadron was often compelled to come to anchor. Several seamen were attacked with dysentery, which rendered it desirable to remove them on shore, in order to stop its contagious influence.

On the 17th of May the squadron anchored in a spacious bay, on the eastern side of the island of Pulo Condore, at the entrance of its southern extremity. Four small islands form this bay, the principal of which, in shape of a half moon, with a ridge of peaked hills, is about twelve miles long, and three broad. By a meridional observation its latitude is eight degrees forty minutes north, and its longitude a hundred and five degrees fifty-five minutes east. A nest of turtles was found here upon the beach, containing several young ones, just hatched. Their size was about an inch and a half, and their weight only a few ounces. Something resembling a placenta was observed to adhere to their bellies.

The English were dispossessed of their settlement on Condore, in the beginning of the present century, by some Malay soldiers then in their pay, who murdered most of them in resentment, for, probably, imaginary ill usage. A very small number had the good fortune to escape from the island, in which no European has since resided. Close to a sandy beach, at the bottom of the bay, was a village, to which a party being detached, armed, they were met by some

of the inhabitants, who welcomed them on shore, and escorted them to the residence of the chief: it was a neat bamboo cabin; the floor, elevated a few feet above the ground, was covered with mats. In one apartment was an altar dressed out with images; and the partitions had pendant figures of monstrous deities. A few spears stood against the wall, as did also some match-locks and a swivel gun. Their dress was principally of blue cotton, worn loosely about the body; their faces were flat, and their eyes small. Their *oral* language was different from the Chinese, but the *written* one was composed of the same characters.

An offer was made to them to purchase provisions, and the specified quantity were promised to be ready the next day; when, if the weather permitted, it had been intended to land the invalids. Messengers being, accordingly, sent on shore, with money to pay for them, were astonished to find the village abandoned. The inhabitants had left open their houses, and none of the effects had been removed. In the chief's cabin was found a paper, written in the Chinese language, of which the following is the literal translation; that "the people of the island were few in number, and very poor, yet honest, and incapable of doing mischief; but felt much terror at the arrival of such great ships, and powerful persons; especially as not being able to satisfy their wants in regard to the quantity of cattle, and other provisions, of which the poor inhabitants of Pulo Condore had scarcely any to supply, and consequently could not give the expected satisfaction. They, therefore, through dread and apprehension, resolved to flee, to preserve their lives. That they supplicate the great people to have pity on them; that they left all they had behind them; and only requested that their cabins might not be burnt; and concluded by prostrating themselves to the great people a hundred times."

It is probable that the writer of this letter had re-

ceived some unfair treatment from former strangers, and it was resolved they should have no cause to entertain the same unfavorable idea of all who came to visit them. There is no doubt but that they were as much surprised, on their return, to find their houses undemolished, as their visitors had been to see them all deserted. Not an article had been removed; and a small present, such as was imagined would be acceptable to the chief, was left for him in the principal dwelling, with a Chinese letter, purporting that, "the ships and people were English, who called merely for refreshment, and on fair terms of purchase, without any ill intention; being a civilized nation, endowed with principles of humanity, which did not allow them to plunder or injure others, who happened to be weaker and fewer than themselves."

This letter, however, was not likely to fall into their hands while the ships remained in the bay. Their apprehensions could only subside by removing the exciting cause; and as it was a matter of importance to get the invalids comfortably provided for on shore, the signal was made to weigh anchor, and on the evening of the 18th of May the squadron quitted this place, and shaped their course to the northward.

## CHAP. VII.

*Cochin-China. Passage to the Ladrone Islands, near Macao; and thence to Chu-san. Transactions and Observations there.*

The state of health of the Lion's crew became daily more alarming, and the necessity for removing them on shore more urgent. Besides the dysentery, several were afflicted with diseases of the liver; others with sudden and violent spasms, and the sultriness of the weather often produced deliquium. From reports of

former voyagers Turon Bay, in Cochin-China, promised the advantages of good anchorage for the ships, and a dry air and fresh provisions for the men; and towards this place the squadron bent their course.

In the evening they came in sight of the southern extremity of what may be called the Chinese continent. This part is divided into three small kingdoms, or territories, called Cambodia, Tsiompa, and Cochin-china. History states it to have formed, anciently, a part of the Chinese empire; but the Chinese governor of the southern peninsula, containing Tung-quin to the northward, and Cambodia and Tsiompa to the southward of Cochin-china, seized an opportunity, and erected the standard of independence at the time of the Mogul invasion of China, from Tartary. He and his posterity had residence in Tung-quin. In the course of time, the Tung-quinese governor, following the example of the ancestor of his sovereign, also erected his government into a kingdom. Both, however, acknowledged a nominal vassalage to the Chinese empire; and did occasional homage at the court of Pekin. This connection with China, though slender, was considered by the embassy as worthy of attention.

No part of Cambodia came within view of the squadron; but Tsiompa was discovered on the 19th of May, as was Tyger Island near it; and the next day two other islands, Pulo Cambir de Terre, and Pulo Cecir de Mer. After this, in latitude twelve degrees fifty minutes north, Cape Varella came in sight, on the summit of which is a high rock resembling a tower. To the northward of this rock, in latitude thirteen degrees fifty-two minutes north, is a bay called Quin-nong, or Chin-chin, often resorted to by the country vessels.

Pulo Canton, named also Pulo Ratan, whose extremities being high and its middle low, give it the appearance of two islands, was descried on the 22d of May. The squadron was now abreast of the king-

dom of Cochin-china, and their passage between its shores and a multitudinous range of rocks and islets, called the Paracels, lying north and south for almost four hundred miles. The danger of being driven against these, by currents, was not less to be attended to than what are called, in those seas, typhoons, in the Atlantic hurricanes; being both alike as to the violence and sudden shifts of the wind. Some preternatural appearances in the atmosphere indicated the approach of one, on the 23d of May; but they soon after disappeared: and the weather, next morning, being fine and clear, shewed an opening in the land, at some distance, supposed to be Turon bay.

A great number of canoes were fishing between the squadron and the land, and several were hailed to come alongside; but being frightened at the sight of strange vessels, they made towards shore with all possible speed. One canoe was overtaken by the Hindostan's boat, and the skipper, under great terror, taken on board as pilot. His mind was soothed, and his alarms dispersed by attention and presents; and he conducted the Hindostan into Turon bay; but, before she came to, sudden squalls of wind, accompanied with thunder and lightning, drove all the ships again to sea, and they could not return to anchor before the 26th of May, when the Lion moored in seven fathoms water. The channel into the bay is round the north-east end of a peninsula, called by the squadron, from its resemblance to, Gibraltar: having a lump of an island to the north. Ships may approach the coast with safety, as the water shoals gradually from twenty to seven fathoms.

The first object attended to, was to find a salutary and convenient spot for the sick and invalids. Gibraltar hill, near the Lion's berth, was fixed on; and as soon as tents were pitched they were all taken on shore. A dispatch was preparing to be sent to the town of Turon, to announce the arrival of the ships, and the cause of their detention; but an alarm had

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already been excited, for the Lion had no sooner anchored than an officer came on board, in order to be informed of the reasons for the squadron's appearance, considered by them hostilely, not having ever seen ships of such magnitude and warlike construction.

Besides the usual squadron, another vessel from Macao, under Genoese colours, followed them into the bay, so that the whole had an inimical aspect. The latter idea was entertained from a circumstance explained by the master of the brig from Macao. He said that Turon, and a considerable part of the kingdom of Cochin-china, were at that time under the dominion of a young prince, the nephew of an usurper, whose antagonist, a descendant of the former sovereigns of the country, still retained some parts of the southern provinces of the kingdom; and that he was in daily expectation of such succours from the court of France, as might enable him to re-conquer the territories of his ancestors. European missionaries had been treated by his family with kindness, and their religion tolerated. The principal of those missionaries, dignified by the pope with the title of bishop, was afterwards sent, by his Cochin-chinese majesty, embassador to the court of France: whither he escorted the young prince, for whom such an uncommon degree of interest was taken, that effectual succours were promised for the re-establishment of his house. Measures were actually preparing in France for this purpose, when the revolution which happened deprived the unfortunate monarch of the power of affording assistance. These hopes, however, were often repeated; and the squadron now in the bay was supposed to be come with hostile intentions.

A communication soon took place between the officer and interpreters, by means of the written characters of the Chinese language. The pacific disposition of the squadron being declared, and its ultimate object explained, an immediate supply of provisions was requested. The governing magistrate of

the place, in the interim, had written for instructions to the capital; and till he received an answer very little could be procured either from boats or at market; and the few articles purchased were paid for at exorbitant prices.

But in three or four days a person of rank arrived at Turon, who complimented the embassador on the part of his master. He came in a large decked galley, with numerous rowers. There was a state cabin upon the middle of the deck, neatly painted; the head and stern were ornamented with streamers of various colours; and the sides of the state cabin were encircled with spears, and various ensigns of authority. The officer, attended by a Chinese interpreter, was dressed in elegant silk robes; and his manners were polished and refined. Nine boats followed his galley, full of various kinds of provisions, as presents, from the chief, for the sailors and passengers; and from that moment the markets were abundantly supplied, and the articles sold at reasonable rates. The governor of the district also came on board, and paid a visit of respect. He invited the embassador and suite to an entertainment on shore, and proposed to keep an open table for their constant reception. The most marked attention was henceforward manifested, and no effort spared to cultivate the friendship and good wishes of the squadron.

Proposals were made for the purchase of arms and ammunition; and it was perceptible that no consideration would have been spared to have derived assistance in behalf of the prince then reigning at Turon, as well as at the capital and northern parts of the kingdom. His situation was very insecure: the province of Donai, or southern part of Cochin-china, had reverted to the antient family of its sovereigns; and Quin-nong, the middle province, was possessed by the usurper of the whole. His younger brother, entrusted with the care of his conquests in the north, availing himself of this confidence, invaded Tung-quin,

the neighbouring kingdom, with success; and then declared himself sovereign, as well of Tung-quin as of Cochin-china. He also intended to have wrested from his brother what he still possessed of that kingdom, and likewise such other parts as had been recovered by the lawful sovereign. But this bold, enterprising usurper, well versed in the art of war, died in September, 1792, in the midst of his successes. His eldest son, who was illegitimate, was left in the government of Tung-quin. The youngest, his legitimate offspring, by a Tung-quinese princess, being at Turon when his father died, instantly took upon himself the reins of government, as heir at law to his father; while his elder, but illegitimate brother, kept possession of Tung-quin, and arrogated a right to the whole of his father's conquest.

During this state of civil warfare, which had lasted twenty years, great numbers had fallen on both sides. The country was so much depopulated and exhausted, and the balance of parties so nearly equipoised, that no enterprise of moment was undertaken, though both were devising and preparing new projects for each other's overthrow. But had these evils not existed, the embassador did not imagine it would have been proper to present his credentials, much less to treat on any kind of business, till he should have delivered those addressed to the Emperor of China. His excellency confined himself to a reciprocation of compliments and respect, and to a return of presents which had so seasonably been sent to the squadron. But even this kind of intercourse did not exist without visible marks of mutual distrust and close observation.

The bay of Turon, called by the natives Han-san, as well as the town, might, with more propriety, be styled a harbour. It is very capacious, has good holding ground; and ships may anchor securely from every wind. The sea-breeze commences about three or four in the morning, and continues about twelve hours; to this succeeds the land-breeze, which lasts

nearly as long; and is not contaminated by passing over swamps or marshes. In common weather, ships may be so placed as to take advantage of both: the sea is smooth throughout the harbour, and there is a convenient place for ships to be hove down or refitted.

The harbour is plentifully supplied with fish: the fisherman is sometimes attended by his wife and children in the boat, in which a circular roof serves them for shelter, in lieu of a flat deck. Broad pieces of gourd or calabash are attached to the children's necks to buoy them up, in case they should fall overboard. As often as the fishermen return on shore, they erect altars to the deities, among the bushes; make offerings of rice, sugar, and other victuals, and burn odorous consecrated wood, imploring the safety of their families, and success in fishing.

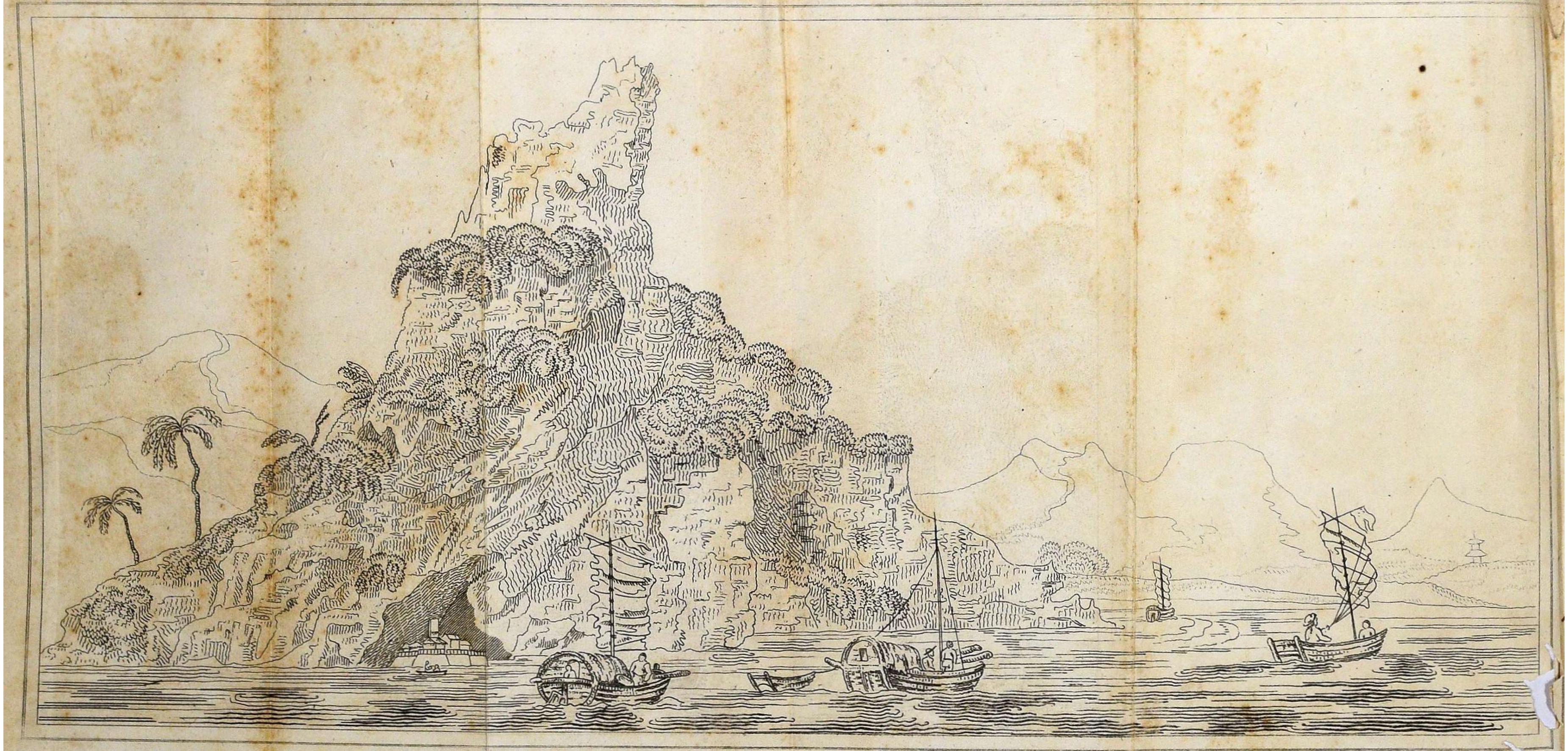
A river at the southern extremity of the harbour leads to Turon town; and upon a contiguous point of land is a watch tower, consisting of four exceedingly high pillars of wood, upon which a floor is constructed. From this floor, ascended to by a ladder, may be seen any vessels to the northward; and, looking over the isthmus, those to the southward. All vessels going into the river are stopped and examined at this tower. Upon the sand, by the river's side, was seen that renowned bird the pelican of the wilderness, the size of whose bill, gullet, and wings, are more than proportionate to its body, which is, however, not less than that of the largest turkey. The town is situated about a mile above the river; the adjoining land has a gradual slope to the water's edge. In this river infants, from two years old and upwards, came down from their habitations, and swam and sported in the water like so many ducklings.

Turon, before its civil commotion, was considerably larger than it is at present. The houses were low, built principally with bamboo, and thatched with rice straw or rushes; and, except those situated in

the market-place, interspersed with trees: the neatest are in the centre of gardens, planted with the areca-nut tree, and other delectable shrubs. Behind the town are others, situated in the midst of groves of oranges, limes, and plantanes. The market was well supplied with fish and poultry, especially ducks; and the various fruits and vegetables indigenous to tropical climates.

The chief of the place gave an entertainment to a party from the ships: the table was spread with many dishes, or rather bowls, consisting of pork and beef cut into small square pieces, served up with various kinds of savoury sauces. In others were stewed fish, fowls, and ducks; and the rest were loaded with fruits and sweetmeats: the number of bowls were not less than a hundred, piled in three rows, one above another. In lieu of bread, boiled rice was placed before each guest; two porcupine quills did the office of knife and fork; and their spoons, in form of shovels, were made of porcelain. After dinner, an ardent spirit, obtained from rice, not very unlike whisky, was served around in cups; and the host, by way of example, and in the style of European festivity, filled his own a bumper, and when he had drunk it, turned it up, to shew none was left in the bottom: he afterwards walked a short distance with the gentlemen, and took them to a kind of theatre, where a comedy was represented. The principal characters were a peevish old man and a humourous clown and they were so well supported as to excite risible pleasure: not only the theatre, but all the adjoining trees which looked into the playhouse, were crowded with spectators, who were more inquisitive to see the strangers than these were to see the actors.

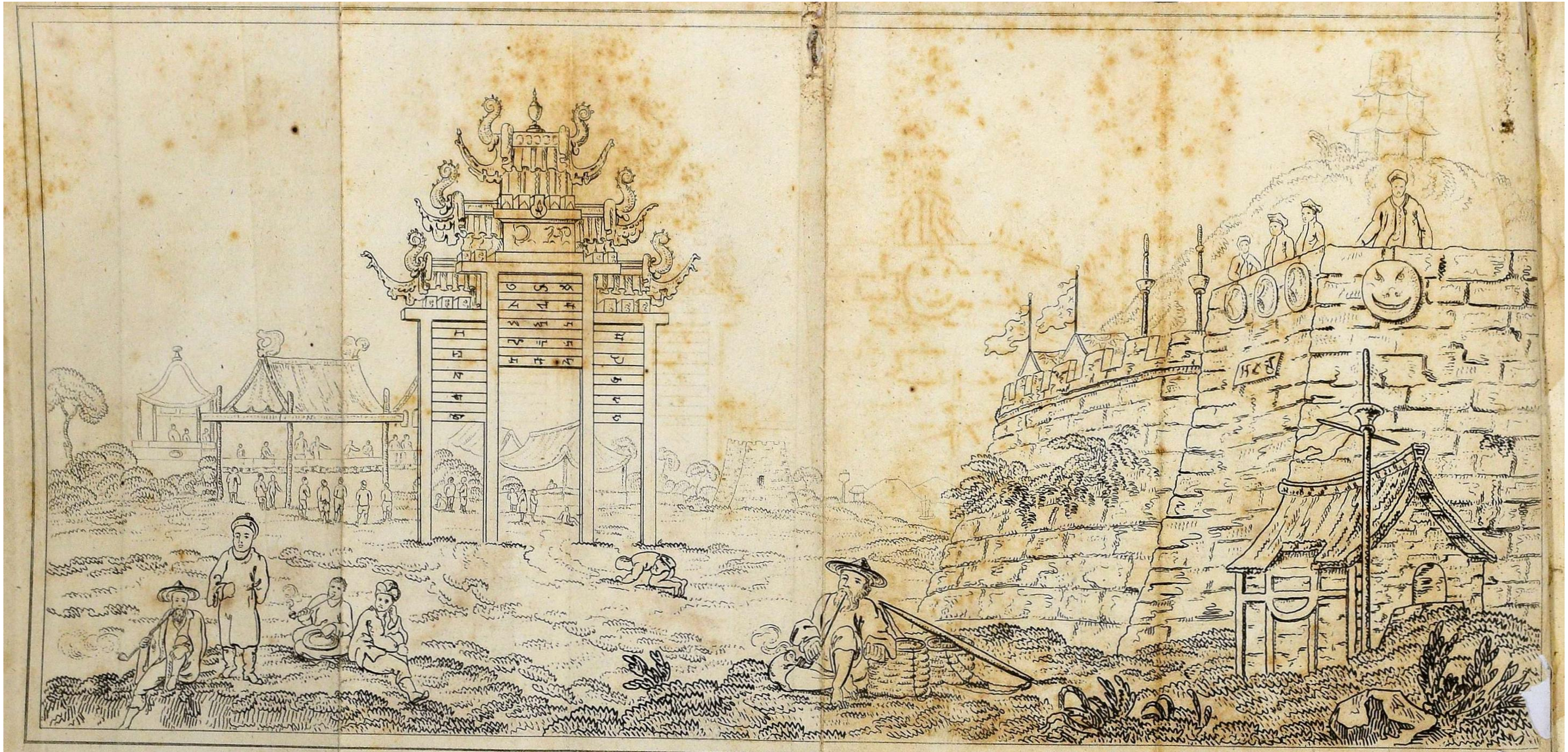
On the return of these gentlemen from the entertainment, a harbinger was dispatched to request them, by signs, to stop till an elderly lady, who was on the way from her house, should come up with them. Approaching with wonder and surprise, she apologised



Cooper, sculp.

**THE ROCK OF QUANG-YIN.**

*with an Excavation near its Base Serving as a Temple and Dwelling for several Priests of Fo.*



VIEW OF A POI-LOO, IMPROPERLY CALLED A TRIUMPHAL ARCH, AND OF A CHINESE FORTRESS.

Coope[r] sculp.

Cooper, sculp.

NATIVES OF COCHIN-CHINA, PLAYING AT SHITTLE-COCK WITH THEIR FEET.

in the language of nature, for the liberty she had taken. She gazed at them with avidity and uncommon attention, and shortly after, testifying her thanks for their politeness, retired, exulting in the gratification of an ardent curiosity.

The attention of the same gentlemen was arrested in their turn by a singular instance of eastern agility. A number of Cochin-chinese young men were collected together, playing at shittlecock: they had no battledore, neither did they use the hand at all; but, after running a short distance, met the descending shittlecock, and struck it with the foot so forcibly as to drive it up high in the air.

But sportive games are not the only instances in which these active and ingenious people used their feet as others do their hands. The lower orders, and many of other ranks, are accustomed to go barefooted. By this the muscles of the toes have free motion, and acquire a strong contractile power, so as to render the foot an useful auxiliary to the hand, in the exercise of several mechanic trades, but particularly in that of boat-building.

The boats in common use among them, consist of five planks only, united together by ribs or timbers. These planks are rendered flexible by being exposed some time to a flame of fire, and are then brought to the desired degree of inflection. The ends being thus connected together in a line, the edges are joined and fixed by tree nails (wooden pins) and stitched with flexible threads of bamboo: the seams are afterwards paid with paste, made by mixing water with quicklime from sea shells. Other boats are made with wicker work, the interstices of which are paid or filled up with the same composition as used for the former, and this luting, as it may be styled, renders them water-tight: they are remarked for withstanding the violence of the waves, for being stiff upon the water, and for sailing with expedition.

The boat which belonged to the chief of the dis-

trict, was built after the above method, but on a larger scale. It had a carved and gilt head, not much unlike that of a tyger, and a stern decorated with sculpture of various designs, painted in vivid colours. In these boats, contrary to European custom, the principal sitters are accommodated in the stem.

The Cochin-chinese, though little assisted by the fostering hand of science, have brought some of the arts to great perfection. Prompted by necessity, they have shewn themselves sufficiently dexterous in making experiments on substances of which the result promised to contribute either to their wants or their comfort: the few articles manufactured among them are such as would not disgrace a more enlightened nation. Their earthen utensils are neatly made. They understand the cultivating of land; and in the art of refining sugar, they seem to excel Europeans. Their method was this: after draining the gross syrup from it, and that it was become granulated and solid, it was sometimes placed in strata, or layers, of about one inch in thickness, and ten inches in diameter, under layers of equal dimensions of the herbaceous part of the plantain tree: the aqueous juices which exsude from this filter through the sugar, carrying along with it all the feculencies which had been boiled up with it, and leaving the sugar pure and crystalised. In this state it was light, and as porous as a honey-comb, and when dissolved left no impurities at the bottom: this was supposed an improvement on the mode practised elsewhere, which consists in pouring the sugar, when granulated, into inverted conical vessels, and placing a layer of wet earth upon the upper surface of the sugar. But sugar, thus refined, will be less pure than that which is done after the former method.

The art of smelting ore, scientifically, is not known among the Cochin-chinese, yet they have fallen upon the means of making good iron, and the manufacturing of it afterwards into matchlocks, spears, and other articles. Their *dexterity* was conspicuous in

all their operations, especially in the *Barringtonian art*, in which, from frequent practice, they were become noted adepts; neither were they disconcerted whenever their direptions were detected.

Besides gold that was found in the rivers, they had also several mines of the richest ore; and from the pure state in which it was obtained, the gold was extracted by the single action of fire: they formed it into ingots of about four ounces, and made their payments with it to foreign merchants. It was used, also, as an ornament to their dress and furniture, and sometimes as an embellishment to their swords and scabbards. Prior to the troubles in Cochin-china, not only gold-dust, but also wax, honey, and ivory, were brought down from the highlands and exchanged, by those rude people, to the lowlanders for cloth, cotton, rice, and iron.

Silver mines were, formerly, either so rare, or the art of refining so little understood, that silver used to be imported from abroad, and bartered for gold, to the advantage of the importers. But, lately, either new mines of silver must have been explored, or a more facile mode of purifying it practised, inasmuch as it was now the chief medium of exchange for goods from abroad, and was made up, for that purpose, in bars of about twelve ounces.

The lower class of these people transfer their wives and daughters on moderate terms, and without the least scruple; and treat all affairs of gallantry with perfect indifference: the higher orders exercise authority over their wives by confining them; and injustice over the people, by oppressing them. Subordination among them is scrupulously maintained—evinced by numerous instances of abject humiliation.

The first degree of rank here was the military, who held the people in the greatest subjection; the next was that of the judges: the power delegated to both was equally abused, to the oppression of their inferiors. Trials at law were conducted with much seem-

ing formality and apparent equity, but a favourable decree was always to be obtained by bribes. Both parties, indeed, made presents, but the most liberal donor was likely to be the successful litigant.

Painting and sculpture are entirely unknown to the Cochin-chinese: but the science of harmony has been not unsuccessfully cultivated; they have both wind and string instruments, upon which they played several pieces of music in a style that was not expected: their instruments were rude, but their general principles and intentions were the same as in Europe. In performing, they keep excellent time, and measure the bars by a regular movement of both hand and foot.

Among their various amusements, the drama fills up a part of their vacant hours. The embassador accepted an invitation from the governor of the district, to dine on shore on the 4th of June, his Britannic majesty's birth-day, and a grand repast was provided on the occasion. A play was afterwards performed, in a manner superior to any thing before exhibited. It was a kind of historical opera, with the recitative, air, and the chorus, in strict conformity to the established mode of the Italian stage; and several of the female singers met with, and merited, much applause. The embassador's band performed occasionally, but their music was by no means approved of.

The embassador was received in a building hung with printed cotton, of British manufacture, and the soldiers who attended the governor had outside vestments of red cloth, also supposed to have come from England. But their chief trade is with the Portuguese at Macao, who supply them with goods of an inferior quality, from the Canton market, and who, in their dealings, experience many exactions from the executive government.

The soldiery of Cochin-china were armed with sabres, and long pikes decorated with tufts of hair dyed *red*, a colour forbidden to be worn in dress or

equipage by any except in the service, or by order, of the sovereign. His excellency's guard who attended him on shore, fired a salute in honour of the day, and performed a number of military evolutions, to the astonishment of the native troops, and to the admiration of a beholding multitude.

Though the country has been very much depopulated by a long civil war, thirty thousand men, exercised daily, were said to be in garrison at Hue-foo, the capital of the kingdom, about forty miles to the northward of Turon. Their generals have much reliance on the havoc made by elephants, here trained for war: these, likewise, are occasionally exercised, and are obedient to command. Figures of soldiers are placed in ranks before the war-elephants, who are instructed to assail them most furiously, grasping them with their trunks, throwing some into the air, and trampling others under foot. The elephant, however, is gentle by nature, agile though unwieldy; and perfectly inhostile, unless trained to acts of violence, or roused by corporal injury: their keeper is generally a boy, who mounts upon his neck, and governs him with ease; and the extreme sensibility and abducent power of his proboscis renders it, in many instances, equal in activity to the human fingers.

The elephant, among the Cochin-chinese, serves likewise for food, and his flesh is accounted a great delicacy. When slaughtered for the table of the king or his viceroy, pieces are cut off and sent as presents to persons of rank, as a distinguished mark of favour. Buffalo has the preference over other beef. It is not customary to milk any kind of animal; of course, milk constitutes no part of their food; notwithstanding they have often experienced all the horrors of a famine, occasioned by the destruction of the contending armies. In this dreadful conflict, human flesh is said to have been exposed for sale in the public markets of the capital.

During the insurrection in Cochin-china, the neigh-

bouring Tung-quinese seized that opportunity to invade the territories of the north, comprising the capital of the country, and pillaged it, during their short stay, of every thing that was valuable, especially gold and silver. The major part of what then escaped their rapacity, had been since sent to China to pay for the necessaries of life brought thither by the junks, an extremity which the miserable inhabitants had been often put to, from the devastation of their cultured lands, and the destruction of their manufactories.

The present mountaineers are descendants of the original inhabitants of the country; and when their ancestors, in possession of the plains, were invaded by the Chinese, they retired to the mountains which are on the confines of Cochin-china to the westward, as well as to those which separate it from Cambodia: similar to the flight of the ancient Britons into Wales. These residents of the mountains of Cochin-china are depicted as rude and barbarous, with coarse features and black complexions; whereas, the colour of the lowlanders was less dark; and these were considered, before the overthrow of the ancient government, a civil, affable, and harmless people. This simplicity of manners still exists among the agricultural inhabitants.

Smoaking is a custom very prevalent in both sexes of the Cochin-chinese: but the women smoke less than the men. They have no wine in the country, but indulge themselves in the free use of spirituous liquors, as well as in that of tobacco; and they are passionately fond of chewing the areca-nut and betel-leaf, kneaded into a paste with lime and water. The men are lazy in the extreme; the smoaking of tobacco being their chief employment; and a servant always attends his master abroad with the apparatus for smoaking. The women are remarkable for industry, as well at home in domestic affairs, as abroad in cultivating the land. In towns they often act as agents

and brokers for foreign merchants, and cohabit with them during their agency; and in both situations are said to act with fidelity. Concubinage is not here accounted dishonourable.

The exterior dress of these people was hardly sufficient to discriminate the sexes. Both wore a loose robe with long sleeves, which cover the hands; but persons of rank, particularly the ladies, put on three of these gowns of different colours, one over the other. The undermost touched the ground; the next was somewhat shorter, and the uppermost the shortest of all. Small collars were put round the neck of the robe; and this was sufficiently full to fold over the breast. They had no linen, but wore, in lieu, next the skin, vests and trowsers of silk or cotton. To complete their dress, every lady puts on a girdle, from which hangs a silk bag, having three partitions to contain tobacco, areca-nut, and betel-leaf; and the gentlemen have an ornamented ribband thrown over the shoulder like a belt, having affixed it to a small case or purse for their areca-nut and betel. A few of the women appeared in hats, but never with caps; and some of the men wore turbans. Neither sex, whatever were their dress, made use of shoes.

Rice is the principal object of cultivation, of which there are two kinds; one requiring a wet, the other a dry soil. The last has the appellation of mountain rice.—But besides this, silk, cotton, pepper, cinnamon, coffee, (and, as were before mentioned,) areca-nut, betel, and tobacco, are also generally cultivated. The vine, it is said, grows spontaneously upon the mountains; but the juice of the grape is not made into wine.—The sweet-scented aguila or eagle wood, so highly esteemed in the east, used to be brought hither from the mountains; but, for some years past, no intercourse had subsisted between the high and low landers.

An object of natural curiosity presented itself to view by accident. Upon a shrub (not unlike the

privet), neither in fruit nor flower, were discovered a vast number of uncommon insects, creeping about some of its small branches. They were, in size, not much larger than a domestic fly; in structure—very curious, having pectinated extuberances rising in a curve, and inclining towards the head, something similar in form to the tail-feathers of the common fowl, but in the contrary direction. The insect was either perfectly white of itself, or, at least, covered with a white powder; and even the stem upon which these insects were perceived, was by them covered with a white subtile substance.

The white wax of the east was said to be composed of the above white powder. A certain proportion of vegetable oil being mixed with it, and kneaded together, gives it a degree of consistence or solidity, as to render it fit to be moulded into candles. The experiment may be made, and the fact ascertained, by incorporating one part of this wax with three parts of olive oil. The composition will concrete into a mass, with nearly the hardness of bees' wax.

Turon bay affords a safe retreat for ships of any burden, and at all seasons of the year; and the coast, besides, is intersected with other commodious harbours. Cochin-china then may be considered as particularly well adapted for commerce, seeing that its vicinity to China, Tung-quin, Japan, Cambodia, Siam, Borneo, Sumatra, Malacca, and the Philippines, renders any intercourse with these countries short and facile. Mr. Barrow, who surveyed the harbour, and has given a plan of it, found the latitude of the Hindostan's anchorage to be sixteen degrees seven minutes north, and longitude a hundred and eight degrees twelve minutes west.

Notwithstanding the disadvantage of climate, the country in general was imagined to be healthy; the scorching rays of the summer sun being tempered by the regular breezes from the sea. The rainy season

commenced in September, and continued till the end of November, during which period the low lands were frequently inundated by torrents precipitated from the mountains. These inundations happened about once a fortnight, and continued for two or three days; and as the time of their commencement was about the full and change of the moon, it seemed to confirm the idea of that satellite's influence. The months of December, January, and February, were also accompanied with some rain, and with cold northerly winds.

The deluge, just mentioned, like the periodic overflowings of the Nile, rendered this country as fruitful as any upon the face of the earth; many parts of the land producing three crops of grain in the year. Several commercial nations had an extensive intercourse with the people, and were accustomed to barter British manufactures for their valuable productions, in which were included the precious metals. But the devastations caused by intestine broils had ırned the current of commerce, and now, except a few Chinese junks, nothing but their own galleys and sometimes a Portuguese vessel were seen in their harbours.

Other circumstances hastened the destruction of the commerce of the country. Permission to trade was only to be obtained by purchase; high duties were levied on goods for sale, and presents demanded ' those in power; and to complete the whole, pery had been practised to cut off both ship and rgo. An instance of this kind is recorded, by the ıst India Company, to have happened in the year 778. The French, conscious of the danger and uncertainty of holding intercourse with them, had directed their views to the purchase of the small island of Callao, situated a few miles to the southward of Turon. Such an intention rendered that island of importance: and a professional visit was made to it by Captain Parish and Mr. Barrow.

Callao, so called by its inhabitants, but by Europeans Campello, is opposite to the mouth of a large river on the coast of Cochin-china, about eight miles to the eastward; on the banks of which stands the town of Fai-foo, a place well known, at no great distance from the harbour of Turon. The bearing of the highest peak of Callao from this harbour, is about south-east, distant thirty miles. The extreme points of the island lie in fifteen degrees fifty-three minutes, and fifteen degrees fifty-seven minutes north latitude; the greatest length is from north-west to south-east, and is about five miles; and its mean breadth two miles. The south-west coast is the only inhabited part of the island. The lower grounds contain about two hundred acres of good fertile land, diversified with temples, houses, shrubberies, and trees of various kinds; and a stream of pure water issuing from the mountains, is directed through sluices along the ridges of the vale, to refresh the rice grounds in dry seasons.—The number of houses upon the island was about sixty, of which thirty were in the principal village, chiefly built of wood; a few, however, of stone, covered with tiles; and the appearance of the whole was clean and decent. Behind every house, not immediately in the village, were growing, in a state of exuberance, sugar-canes, tobacco, and various kinds of vegetables.

Exclusive of the principal bay there were seven sandy inlets, and at the back of these small parcels of level ground. These entrances formed tolerable landings for boats; but steep and rugged rocks, which separated them from each other, rendered any communication between them difficult, if not impracticable; so that very slight works would be sufficient to defend the island. The water in the bay was deep enough for ships of the heaviest burden, and they were perfectly sheltered from every wind, except the south-east, to which quarter it was immediately open.—The distance betwixt this and Chi-

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is very short; a passage, with a fair monsoon, was made in four or five days. If, therefore, the impediments and restrictions which impede a freer intercourse with China could be removed, a settlement at Cochin-china would be of as much advantage to great Britain as to any European nation; because, independent of this new channel for the consumption of its own manufactures, it would secure to the British settlements of Hindostan an important demand for their productions.

Preparations were now making by the squadron for their departure. They had been about fourteen days in Turon harbour, and the monsoon having set in favourably, promised a quick passage to the coast of China. The invalids, who had been on shore the whole time, were returned on board in better health, and the ship was free from every kind of contagion. The passengers and crew had to regret the decease of a worthy man, Mr. Tothill, purser of the Lion; and nearly about the same time, much temporary uneasiness was created for the fate of Mr. Jackson, the master, as well as for a boat's crew. He had gone in one of the ship's boats to take the soundings and bearings of the eastern shore, on the peninsula of Turon, and was expected to return the same night. All the next day elapsed without any tidings of him, and of course his friends were alarmed for his safety, recollecting the perfidiousness and cruelties exercised against strangers upon the coast. The rumour which had been spread that he, the boat's crew, and the boat, had been seized and detained, was soon confirmed by a Mandarine, who acknowledged that some foreigners had been taken up for attempting to penetrate, in the night time, one of the rivers in a suspicious, if not in an unwarrantable manner. This was a very unpleasant circumstance, as it was possible that a tedious discussion with the acting government might arise from the subject, which, in its consequences, might in some respects impede the business

of the embassy. The embassador, however, claimed them, and a promise was given that they, their boat, and effects, should all be restored. A few days after they did return, but in their captivity they had suffered much fatigue and many indignities from the people, independent of the cruelties exercised over them by the inferior officers.

This incident furnished Mr. Jackson with an opportunity of making some pertinent remarks on that part of the country through which he was marched. He stated that, intending to make a survey of the eastern coast of the peninsula, he kept along shore till he reached the isthmus' point, when the sea-breeze set in. He then stood towards the entrance of Fai-foo river; and being assured that it was a branch of another river of which another branch, at a short distance, fell into the harbour of Turon, he thought of returning that way to the ship. After proceeding twenty miles in various directions, about eight at night he found himself before a large town on the bank of a river. Having remained there about two hours, he was beckoned on shore by two armed galleys; but he had no sooner landed than he was seized by fourteen men, and taken to a house in the town, where he and the rest remained prisoners all night. The next morning they were all removed from thence handcuffed, to a fort at a short distance from the town, and treated with much inhumanity till the arrival of a person of authority, who, apparently, was greatly displeased at their behaviour. They were afterwards marched for two days through the country, scoffed by their conductors, and derided by the populace, till at length, being escorted to their boat, they got on board and steered for Turon harbour.

In marching through the country to the south-west of Turon, Mr. Jackson observed it was level and fertile. He saw many rivers and canals full of boats of various sizes. They lay before a town three

quarters of a mile long, (distant from the sea twelve miles) whose houses were built with red brick: they passed through two other large towns; in one the market was stored with rice, yams, sweet potatoes, greens, pumpkins, melons, sugar (in wide circular casks, at three halfpence a pound), sugar canes, poultry, and hogs. Stalls were erected in the market, built with bamboo, for the sale of cloths and other articles. The country seemed exceedingly populous, and both men and women very industrious.

Narrow paths, in cultivated grounds, served as distinctions of landed property, for they had no fences whatever. The land was ploughed by a couple of buffaloes; and the plough appeared to be all of wood. Children were employed in picking cotton from the pod; and women in spinning and weaving it. The horses he saw were small, but mettlesome; they had many goats, and there were some mules and asses. The civil officers treated the people like tyrants, the soldiers like brutes; both kept them under great subjection. Their arms consisted of spears, long pikes, and cutlasses. He saw no cannon, but several wall-pieces with bell-like muzzles; there were no carriages of any kind: neither, indeed, were the paths made wide enough to admit them.

Since Tung-quin had submitted to the arms of the late usurper, the whole of the Cochin-chinese territories occupied the space between the twelfth degree of northern latitude, and the tropic of Cancer, and its breadth not quite two degrees of longitude. These domains are bounded to the westward by a cordon of mountains, which lie contiguous to the kingdoms of Laos, Siam, and Cambodia; Cochin-china and Tung-quin are washed by the sea to the eastward; this has the Chinese province of Yunman to the northward; and that of Tsiompa to the southward: the whole comprises about ninety-five thousand square miles.

Notice was given to the officers of the Cochin-chinese government that the squadron was about to quit its present station. This was answered by a message of compliment from the reigning prince, attended by a second present of rice and other provisions. The embassador replied with appropriate civility and thanks, and signified his intention of returning to Cochin-china, if practicable, after he should have visited the court of Pekin. The squadron then weighed anchor, and sailed from Turon on the sixteenth of June, 1793.

For the first three days after their departure they met with currents which set in various directions, arising from different causes; and on the twentieth of June the ship discovered a high acuminated island, called by Europeans the Grand Ladrone. Near it was another, less lofty, but more level upon its top: and the same day the main land of China came in sight, bearing north-north-east.

On the twenty-first of June the squadron anchored in twelve fathoms water, under the lee of Chook-tchoo, another of the Ladrones; which place bore south by west, distant three miles, and the Grand Ladrone W. S. W. three leagues. The latitude of the Grand Ladrone was found to be twenty-one degrees fifty-two minutes north, and the longitude a hundred and thirteen degrees thirty-six minutes east; the latitude of Chook-tchoo twenty-one degrees fifty-five minutes north; longitude a hundred and thirteen degrees forty-four minutes east. The above longitudes, which were ascertained from correct data, and accurate calculations, are a few miles less easterly than what they have been supposed to lie in.

The rocks adjoining the sea which border the island, are of a dark brown colour, and much honey-combed, by reason of the action of the salt water. They are component masses of clay, a small proportion of calx of iron, and a considerable one of flinty earth, and of mica, a genus of the talc; and the soil

upon the surface of the island seemed to partake of their combined properties. Some springs are found upon these islands, whose water is neither brackish nor chalybeate.

The squadron being now on the borders of China, the embassador gave directions for the Jackall and Clarence brigs to proceed to Macao, on the business of the embassy. On this occasion, two Chinese, brought from Europe, who during the passage had associated with the interpreters, wished to embrace that opportunity of returning to their native land, and accordingly solicited his excellency's permission. The conduct of both had been exemplary during the passage; and one of them, an adept in the Chinese characters, had occasionally assisted the interpreters in the way of their profession. Before his departure his excellency pressed him often to accept of money and presents, as a compensation for his trouble; but he was inflexible in his refusals, declaring, at the same time, his perfect esteem for the English nation; and that gratitude for the civilities which had been shewn him, would compel him, when in China, to do justice to its character, to the extent of his influence. One of the interpreters was also desirous of retiring from the service of the embassy, through fear of being detected, and punished conformable to the laws of his country; for leaving it without licence, and for accepting an employment from a foreigner. The case of the other interpreter was exactly similar, but he had less apprehensions and more fortitude: and was determined, at all events, to fulfil his engagement. To prevent detection, he was dressed in an English military uniform, with sword and cockade; and though a native of Tartary, subject to China, his features were not so strongly marked as to betray his country, and he anglicised his name as an additional precaution.

The other three Chinese embarked for Macao, with the persons ordered thither by the embassador, on the

business before mentioned. The secretary also carried with him dispatches from the government-general of the Dutch East India settlements, to their resident in China, with instructions to aid the views of the British embassy; and letters to the same purport from the cardinal prefect of the congregation for propagating the faith at Rome, to the procurator of the missions residing at Macao. The English factory still remained there, none of the ships having yet arrived from Europe that season, in the river Canton.

On the return of the two brigs from Macao, the embassador received information from the English East India company's commissioners, that "his imperial majesty's disposition to afford a reception to the embassy, suitable to its dignity, had not suffered the least diminution, as appeared by his repeated instructions on this subject to the different governments upon the coast. He had given orders for Mandarines to await his excellency's arrival, and the pilots to be properly stationed to take charge of his majesty's ships, and to conduct them in safety to Tien-sing, as well as to prepare for receiving the embassador, and conveying him and suite to Pekin: concluding his commands with these remarkable words, '*that as a great Mandarine had come so far to visit him, he must be received in a distinguished manner, and answerable to the occasion.*'"

The commissioners, however, formed the opinion, collected from facts, that the governing officers of that place, to whom the embassy was exceedingly obnoxious, had contravened the disposition and inclinations of the emperor towards Europeans; and that nothing could be so desirable, nor so advantageous, to the East India company, as the effecting of a free communication between their servants and the court of Pekin. The Hoppo, or chief officer of the revenue, and inspector of foreign trade, was the most alarmed. He stood self-convicted by his manifold acts of oppression, extortion, and injustice, and viewing the

intent of the embassy in no other light than to procure a redress of grievances, he was terrified at the thought of an investigation, and employed all his art and interest to counteract its tendency.

The Foo-yen, or Governor of Canton, whose idea of the business coincided with that of the Hoppo, was not without his apprehensions; and was still anxious to know the private objects of the embassy. Persuading himself that the commissioners must be acquainted with them, as well as with the persons to be denounced, he assured the Commissioners, that "if they would disclose them to him, he would confine the matter within his own breast and that of the emperor." They very properly replied, that as far as came within their knowledge, there was no other view than that of paying a just compliment to his imperial majesty, and of cultivating his friendship.

The commissioners had been repeatedly pressed to write to the embassador to stop at Canton, where all foreign vessels came, in lieu of going to Tien-sing. By this artifice they hoped to dive into those supposed intentions, and if such existed, to retard the progress of the embassy; probably by corrupting the integrity of the pilots in subjecting them to be biassed by intriguing persons confessedly against the measure.

Some of the European factories still entertained jealousies on the occasion; but the Dutch had availed themselves of the nascent influence of the English to avoid the usual imposts laid on foreigners who remove from Canton to Macao. The emperor's notification had made such an impression on the officers of government at Canton, that several new taxes which originated with and were claimed by the Hoppo, in the article of customs, had, since the arrival of the commissioners, been given up, on an absolute refusal to submit to them; and this without any con-

sequent delay in shipping the company's teas. The suspected complaints which he deprecated, had extorted from him instances of forbearance, and acts of civility.

The governor of Canton had demanded a list of the presents intended for the emperor; and as the curiosity of the court of Pekin had been roused on the occasion, he wished for the means of gratifying it. He laid it down as a necessary condition; affirming that "he could not send the letter announcing the embassador's approach, with an offering to his master, without transmitting the particulars of it." The commissioners, who discovered that much importance was attached to the nature of the presents, gave all the information they were able concerning them, but declared their knowledge of the business was very limited, as they had left England previous to many of them being provided.

The embassador received information, also, from the commissioners, that two of the native merchants of Canton had got orders to be in readiness to go to any part of the coast, whenever intelligence should be obtained that any of his majesty's ships had arrived there with the embassador, and probably to proceed to court with his excellency. It was conjectured they were to serve as interpreters, as well as to treat for any merchandize which might be sent with the embassador for sale. The commissioners, however, were of opinion, that the extensive traffic between the said merchants and the company might suffer by their absence, and for that reason intreated the government not to take them from their business, inasmuch as the embassador was already accommodated with interpreters, and that there were no goods of any kind for sale on board the ships which attended the embassy. These merchants, besides being illqualified for interpreters, would have suffered considerably in their affairs by the journey; they, therefore, backed the pe-

tition by making liberal presents to the officers of the government of Canton, and were in consequence excused from leaving their concerns.

It had been the custom, on former embassies, to send one of the *missionaries*, attached to the palace, to meet and accompany the embassador to court, but even with these, a change of system had been resolved on. Due precautions had been taken, from the moment the French revolution and its concomitant calamities were known at Pekin, to prevent the introduction and dissemination of similar principles. And though foreigners were not excluded from entering into Canton, and that missionaries were still admitted into China, and, as adepts in the sciences, encouraged in the capital, yet their conduct was narrowly watched, and their correspondence intercepted and examined by the vigilant and suspicious government of China.

The inference deducible from the above is obvious; that on the present occasion, of communicating with foreigners, the Chinese would naturally give the preference to their own subjects; nearly in which light, from a long uninterrupted connection, they considered the Portuguese of the dependent settlement of Macao. Some friendly offices, however, were to be expected from these in behalf of the English in consequence of the strict alliance which subsisted betwixt the two nations. But the embassador was assured, on the best authority, that the Portuguese still retained their ancient policy of a monopoly, and were exerting their influence to exclude all foreigners from China. His excellency then had principally to rely on the impression which his own conduct and that of his suite might make on the Chinese, for dissipating the jealousies, and removing the prejudices entertained against the English, as well as for surmounting every obstacle that might be thrown in his way to counteract the tendency of the embassy.

The brigs being returned from Macao, the squadron

got under way, and left Chookchoo on the twenty-third of June. The wind was favourable for their course towards the straits which separate the continent of China from the island of Formosa, or, as the Chinese call it, Tai-wan. The same day the ships passed between two small islands, one, from its bifurcated appearance, called Asses' Ears, the other Lema, both environed with rocks, and uncultivated. By meridional observations, and the aid of time-keepers, the situations of these islands are

| | | | |
|---|---|---|---|
| Lat. of | The Asses' Ears, | 21° 55″ | North. |
| | Lema - - - | 22 | |
| Long. | - - - - - | 114° 7 | East. |
| | - - - - - | 114° 17 | |

On the 24th of June, a large elevated rock was descried, which being perfectly white, has obtained from the Portuguese, who first discovered it, the name of *Pedra Branca.* Its latitude is twenty-two degrees nineteen minutes north, longitude a hundred and fourteen degrees fifty-seven minutes east. At noon the thermometer was at eighty-four degrees, and the barometer at twenty-nine inches seventy-three decimal parts. During the last twenty-four hours, a current had set north by east, at the rate of a mile an hour.

The next day the squadron crossed the tropic of Cancer. An extraordinary degree of redness that evening attended the setting sun. The quicksilver fell suddenly in the barometer; and the wind, before moderate, changed now to a fresh gale from the south-west.

The morning of the 26th came in with heavy squalls, attended with rain, thunder, and lightning; but there was a calm before noon. The sea, notwithstanding, kept up for some time. The thermometer stood at eighty-two degrees, and the barometer at twenty-nine inches sixty-three decimal parts. During the remainder of the day, the wind veered from south-east to south by west; and the weather

being squally, thick and hazy, attended with much rain, no observation could be taken.

It is a custom among the Chinese sailors, when it rains, to change their cotton cloaths for jackets and trowsers, made of straight uncompressed reeds, placed parallel to each other; and to wear a slouched hat formed of the same texture and materials. The rain slides off their surfaces as water does off the feathers of aquatic birds.

On the 27th of June, the weather was likewise squally, with continued heavy rains, and a disagreeable cross swell of the sea. By observation, a current, within the last three days, had run forty-eight miles in the direction of north seventy-two degrees east, equal to two-thirds of a mile an hour. The thermometer at noon stood at seventy-nine degrees, and the barometer at twenty-nine inches seventy-three decimal parts.

On the 28th of June, the weather was moderate; the wind variable, but chiefly from the north; and there was a heavy swell setting easterly. The squadron having now cleared the strait, a current was observed to set to the westward, at the rate of about half a mile an hour. The weather being moderate, a course was shaped towards the islands of Chu-san.

The weather proved very hazy on the 29th. The soundings now were ascertained to decrease from fifty-two to twenty-two fathoms; and at this time the ships perceived a cluster of islands, distant a very few miles, called the Hey-san, or Black Islands; little else than barren rocks. Their latitude is twenty-eight degrees fifty-three minutes north, and longitude a hundred and twenty-one degrees twenty-four minutes east.

On the 30th of June the squadron had thick weather, with a moderate south-west breeze. As they were now standing to the northward, the soundings increased from twenty-two to thirty-two fathoms.

On the 1st of July, they met with hazy weather, with drizzling rain; the wind southerly, but variable. This day another cluster of islands, called the Quee-san, were observed, and, the next day the squadron advancing near them, anchored in nine fathoms water. The highest and most southerly of these, called by the English Patchcock, bore north by west four miles. It is situated in latitude twenty-nine degrees twenty-two minutes north, longitude, by chronometer, a hundred and twenty-one degrees fifty-two minutes east.

On the third of July the squadron weighed anchor, and stood in, not without difficulty, nearer to Chusan, by reason of a multiplicity of boats around them. There were some thousands in sight. Three hundred crouded about the Lion, from one of which a pilot was procured by the Hindostan. He conducted her off Tree-a-top island, and anchored her four miles to the southward of it; but the Lion and Jackall stood in, and came to between the Ploughman and Buffalo's Nose. From hence some of the gentlemen, with the interpreter, were dispatched in the Clarence to Chu-san, to bring down the pilots who had been ordered to carry the ships to Tien-sing.

The Lion got a supply from Plowman's island, consisting of bullocks, goats, and fowls, on reasonable terms; and of fish, from boats which were alongside. The number of visitors who came to see the ship was so great that all the decks were filled; and it was found necessary to send off, successively, one party to make room for another, who were equally anxious to be gratified. Some of them observing, in the great cabin, the portrait of the emperor of China, immediately prostrated themselves in humble adoration, kissing the ground repeatedly; and after rising, looked with grateful complacency towards the exalted possessor.

The Clarence, in her passage to Chu-san harbour, anchored, the first evening, a little to the southward

of Kee-to-point, in seventeen fathoms water; and so good a look-out was kept, that intelligence of her approach had already been received at Chu-san. An officer, from a Chinese vessel, paid a visit on board, who, pursuant to instructions, conducted the Clarence, with his boat, the next morning into Chu-san harbour.

Three hundred islands are said to be comprised between the Quee-sans and Chu-san harbour; a space of about sixty miles in length and thirty in width; among which there are many valuable and commodious harbours; fit for ships of the greatest burthen. This advantage, added to its central situation with regard to the eastern coast of China, and its contiguity to Corea, Japan, Leoo-keoo, and Formosa, make it a place of great trade, particularly at Ning-poo, a great commercial city, bordering on the province of Tche-tchiang, to which are annexed all the Chu-san islands. Twelve vessels are dispatched annually for copper, from one of its ports to Japan.

The occasion of the Clarence's arrival being made known to some civil and military officers, who came on board for that purpose, accompanied by a Chinese merchant as interpreter, it was agreed that the party should disembark in the morning to wait on the governor, and to make the demand. This interpreter, formerly concerned in trade with the agents of the East India Company while they were permitted to frequent this coast, had not entirely forgotten the English language. In a conversation with him he declared, that the English had given no cause for umbrage; that he attributed the interdiction to the intrigues and interested views of the governing officers of Canton; and, perhaps, dreading an innovation of principles, to that jealous eye with which the Chinese government always regarded strangers.

As soon as the governor had information that the Clarence belonged to the embassy, he ordered provisions of every kind on board. He also politely re-

ceived the gentlemen on shore the next morning, and invited them to partake of dramatic and other amusements. He had before been apprised of the embassador's arrival in the Lion, and had sent his excellency a formal invitation to his house, where splendid preparations were making for his reception. The ardent desire of repairing with all speed into the presence of the emperor was admitted as a sufficient apology; as well as for urging an early departure of the pilots.

The governor had provided pilots who were capable only of carrying them to the next port, at which others were successively to be procured, till they should arrive at Tien-sing. The danger of coasting with such large ships, the frequent occasion to cast anchor, and a desire for a direct navigation to the Gulf of Pekin being insisted on, he requested till next morning to determine on the business.

In the interim the party went to view the city of Ting-hai, about a mile distant. It is environed by a wall thirty feet high, overtopping the houses, most of which have only one story. Several square stone towers were erected upon the walls; in the parapets were embrasures, and in the merlons holes for archery. Within a double gate was a guard-house, furnished with bows and arrows, matchlocks and pikes, all placed in proper order; and soldiers were there on duty. The town had many bridges, being intersected by canals; the streets were narrow, paved with square flat stones; the shops numerous, and the goods for sale well displayed; especially coffins, which were painted in various colours. Dogs and other small quadrupeds, poultry, fish in tubs of water, and eels in sand, all intended for food, were exposed alive for sale. Both sexes were dressed in loose garments and trowsers; no paupers about the streets; industry seemed to prevail; and the fields were cultivated like a garden.

Women of the middling and inferior classes, aping

the unnatural custom of their superiors, who consider a small foot as a mark of beauty, suffer much pain and inconvenience by having their feet maimed and distorted. The great toe is the only one left to act with freedom, the rest are doubled down under their foot in their tenderest infancy, and retained by compresses and tight bandages, till they unite with, and are buried in the sole. This gives them an awkward, hobbling gait, causing them to walk upon their heels, and to totter as they pass. The same pressure is applied by some to the ancle. A model was procured of a Chinese lady's foot, and an engraving taken from it. Some of the female mountaineers of the lowest class are exempt from this barbarous custom; but they are holden in the greatest contempt by the others; neither is this habit practised in Hindostan, or Turkey, where women are kept more closely confined than in China.

In the morning the party went, by appointment, to the hall of audience, a spacious building with galleries around it. The roof was supported by pillars of wood; and these, with the beams and rafters, were painted red, and highly varnished. Round the columns, and under the cross beams, were a great number of lamps, or lanterns, of various shapes and sizes, suspended by silken cords. The luminating part of some were made of thin silk, having various devices of needlework; others, not less than two feet in diameter, of a cylindric form, were made of one uniform piece of horn, which being lighter than, is preferred to glass. They are in common use, not only in their houses, but in their temples.

The seams or joinings are rendered invisible by an art found out by the Chinese, of which the following is said to be a pretty exact description. The horns, chiefly those of sheep and goats, are to be put into water, and boiled till they are soft. In this state they are to be cut open, and flattened by repeated strokes with a hammer; after which they may be easily sepa-

rated into thin laminæ or plates. To join two of these together, the sides are to be made straight, and both edges chamfered, as joiners do a piece of wood. They are then to be exposed to hot steam, and as soon as they are thus rendered soft, the two chamfered or furrowed edges are to be put in contact, and pressing them close with any convenient instrument, they will be firmly incorporated.

The governor now made his appearance at the hall, accompanied by a civil magistrate. The latter wore upon his breast a square piece of party-coloured silk, upon which was embroidered a phœnix; the governor's had a tyger wrought upon his, emblematic of his military functions. Tea followed an interchange of compliments, after which he asserted, that it had long been the custom of the Chinese to navigate along the coast from province to province, and that that mode, in the present instance, must be the most eligible; that the port of Chu-san was only an auxiliary port to the greater one of Ning-poo, and not able to furnish such pilots as were required. To this it was answered; that as the English ships were much larger than the Chinese, and of a different construction, they required a mode to be followed different from their usual practice; and that as Ning-poo might supply such pilots as could not be met with at Chusan, they would immediately go thither in search of them.

The governor instantly took the alarm. Their departure for Ning-poo, he said, would be construed by the Emperor as proceeding from an improper or cool reception, and that he might not only be dismissed from his office, but be divested of his honours: pointing to a red globular button in his bonnet, betokening the second class of magistracy in the empire, of which there are nine; and, strictly speaking, no other rank or dignity in the country.

To avert the danger, he undertook to find pilots capable of taking the squadron to the desired place.

Orders were instantly dispatched into town, commanding all persons who had ever been at Tien-sing to repair forthwith to the hall of audience Several came, and underwent examinations; and at last two were found who had often traded to that port, and who said, the squadron might be carried to a safe and commodious harbour, under the island of Mi-a-tau, within a day or two's sail of Tien-sing.

The governor charged these two men to prepare themselves instantly to go on board the Clarence, and to pilot the English ships into the harbour he mentioned, or as near to Tien-sing as was practicable. It was in vain they urged the distress of their families, or the loss of their business; the emperor's orders, he said, must be obeyed, and he could listen to no remonstrance.

The gentlemen now returned on board the Clarence to make ready for departure; and very shortly after they had an unexpected visit from the governor; stimulated as much, perhaps, by curiosity as civility. The pilots being now on board, the Clarence got under way, and the next day rejoined the Lion.

In her absence the embassador had been visited by the deputation mentioned at Chu-san, and also by the governor of the province. Both had solicited his excellency to partake of entertainments on shore, which were declined on excuses similar to those before mentioned.

## CHAP. VIII.

*Navigation through the Yellow Sea. Embassador's Entrance into the River leading to Tien-sing. Progress of the Embassy along the River Pei hoe towards the Capital of China. Departure of the Ships from the Gulf of Pe-Chee Lee.*

Before the squadron could arrive at the Gulf of Pekin, they had to sail through about ten degrees of

latitude and six of longitude, and that in a sea in which no European had hitherto penetrated; Chusan being the utmost boundary of their nautical researches. The ships were now under the guidance of two experienced pilots, well acquainted with the coast; and being furnished with scientific men ready to seize and note down every useful information, it was no trifling advantage accruing to the embassy to have been the cause of exploring, without risk, a tract so extensive and important.

The Yellow-Sea is bounded by China, Tartary, and the peninsula of Corea. The great *Whang-ho*, or Yellow River of China, disembogues itself into this sea; carrying with it, in it's circuition, a vast quantity of yellowish mud, from which circumstance it derived its name.

The pilot being upon deck, looked with astonishment at the manœuvres of the ship, and the alacrity of the seamen in preparing her for sea. He had brought with him a compass, but no chart; nor any instrument for taking an observation. They do, sometimes, carry with them rough draughts of their intended track, sketched out or engraved upon the bank of an empty gourd, its globular form corresponding, in some degree, to the rotundity of the earth. But as the Chinese seas are narrow, and every where intersected with islands, they have less occasion for charts, and they depend chiefly on the polarity of the needle.

The compass, however, is in universal use among them. Their magnetic needles are seldom made longer than an inch, nor thicker than a line, or the twelfth part of an inch. They are poised so *nicely*, or *ticklishly* in the box, as to be moved by the smallest change of position towards the west or east of it; but as the perfection of a compass consists in the magnetic needle's keeping steadily to one fixed portion of the heavens, whatever motion may be given to the containing box, or surrounding object, the Chinese

have an ingenious method of accomplishing this; which, however, cannot be considered very interest. to any of our readers.

The Chinese compass-box, has, upon its upper surface, several concentric circles, of correspendent sizes. The innermost, and of course the smallest, contains eight different Chinese characters, which stand for the four cardinal points, east, west, north, and south; and the four bisecting ones; north-east, south-west; north-west, and south-east. These eight characters are also meant to express as many equal divisions of the natural day, each of three hours; and that of the east being placed towards the sun-rising, the rest, of course, will represent, nearly, the position of the sun at the different times of the day. This division of the inmost circle into eight equal parts, accords with the first compass, said to have appeared in Europe at the commencement of the fourteenth century, which, for greater accuracy, was afterwards, and still remains, subdivided into thirty-two equal parts or points, each whereof has a distinguishing appellation.

The next circle upon the Chinese compass has twenty-four divisions, with appropriate characters, denoting a twenty-fourth part of the heavens, and, consequently, a twenty-fourth part of the natural day; each point containing fifteen degrees, a proportionate part of three hundred and sixty, the number of degrees into which all celestial circles are divided.

As the Chinese nation reckons its chronology by cycles of sixty years, another of the circles contains the characters which express them; as do the two remaining ones those which explain their doctrines of mythology and philosophy.

The ships being ready, they stood out a considerable distance from land, having previously taken their departure from the isle of Patchcock, whose latitude is twenty-nine degrees twenty-two minutes north, and longitude a hundred and twenty degrees fifty-two mi-

nutes east. They entered the Yellow-Sea on Tuesday the 9th of July, in dark, cloudy weather. Vast quantities of yellowish-brown mud were disturbed by the ship's motion through the water, when they were sailing in about six fathoms, as appeared in the ship's wakes at a considerable distance.

On the morning of the 10th of July, being in from thirty to thirty-seven fathoms water, they discovered the islands of Tchinsan and Shoo-tong-yeng; which bore about N. W. by W., distant nine or ten leagues. A heavy swell set from the eastward, accompanied in the morning by thick hazy weather; in the afternoon, by light airs.

Light winds and calms in the fore part of the next day; soundings at noon thirty-si· fathoms. Towards evening a breeze sprang up fr the southward. At five in the morning, descried two new islands, called Pa-tcha-san, and Te-tchong.

Friday the 12th of July, the wind, at the beginning of this nautical day, was at south, sometimes south-east, attended by a thick fog, which increased much in the morning. The soundings from thirty-six, decreased, suddenly, to seventeen fathoms, with grey sand at the bottom; a circumstance, the pilot observed, that indicated they were then opposite to the province of Kiang-nan. Guns were fired, during the fog, to keep the squadron together; notwithstanding, the Hindostan lost company.

Saturday the 13th, the weather being foggy, the lead was cast every hour; the wind was south-east. At short intervals the fog cleared up.

Sunday the 14th of July, the wind as yesterday; but the fog was dispelled. Several junks were observed this morning steering different courses. Land-birds, also, made their appearance; and sea-weed and bamboos were perceived floating upon the water; indications of approximating the land. The Hindostan, it afterwards appeared, had this day fallen in with the Endeavour brig, belonging to the East India

Company, commanded by captain Proctor, on board which vessel was a young man, master of the Spanish and Chinese languages, who meant to offer himself as an additional interpreter to the embassy.

Monday the 15th, alternate foggy and clear weather; the wind southerly. The Hindostan, in clear intervals, perceived a small conic-formed island, called by the pilot Ka-té-noo; and on the next day, the craggy promontory of Shan-tung, and a small island to the southward of this. An inconsiderable current was here observed to set to the northward. The longitude of this place was ascertained to be a hundred and twenty-two degrees forty-five minutes east, and latitude thirty-five degrees ten minutes north. The course which the Lion steered from this place was west by compass, till she reached the latitude of thirty-six degrees twenty minutes north. Here the soundings lessened suddenly from forty to fourteen, and even twelve fathoms, having a sandy bottom.

On Tuesday the 16th, the same island which the Hindostan descried in the north-east, appeared at the same time from the Lion to north-west, she being to the eastward of it.

On Wednesday the 17th of July, the whole squadron again joined company. Two capes or headlands were this day discovered. These, with the island just noticed, lying in the tract from the southward to the Gulf of Pekin, being likely to be the first islands made, their exact situations were ascertained, and the following names given to them by Sir Erasmus Gower.

North latitude of Cape Macartney 36° 54′
East longitude 122° 12′ by sun and moon
———— 122 20 by time-piece.
North latitude of Cape Gower 36 57
East longitude 122 15 by sun and moon
———— 122 23 by time-piece.
North latitude of Staunton's Island 36 47
East longitude 122 9 by sun and moon
———— 122 17 by time-piece.

There was an inlet within Cape Macartney, where several small craft were seen lying at anchor. This cape may be easily known, if it is brought to bear N. N. E. to N. W., by a singular appearance of six pointed peaks.

A reef of rocks ran out from a neck of land near Cape Gower, which appeared to have a compact harbour. The entrance to it was between the cape, and the reef just mentioned. A considerable number of vessels were descried within the harbour, and a pretty large town behind it.

Thursday the 18th, easterly wind with fogs. Another spacious harbour was perceived this afternoon, full of junks. The following day was hazy; the wind from E. S. E. to N.; but a thick fog coming on about midnight, the ships lay to. On clearing up the next morning, they found themselves close to a small rocky island. From hence the squadron made sail along the coast in various directions, till they got into the bay of Ki-san-seu. The harbour of Mi-a-tau was in an island, distant fifteen leagues farther to the westward, though the latitude differs but a few miles only to the northward.

The bay of Ki-san-seu is very spacious, extending about ten miles from east to west, and nearly the same distance from north to south. It is sheltered from every wind except from E. N. E. to E. S. E., the direction of the entrance into it. There are two harbours within this bay; one at the back of a high bluff point, called Zeu-a-tau; the other, on the S. E. side of the bay, on a projecting slip of land, by the mouth of a river, called Ya-ma-too.

The squadron remained one day in this bay, having procured new pilots; but on Sunday the 21st of July, they made sail through the passage between Cape Zeu-a-tau and the island, keeping rather closer to the former than the latter. There was a bay a little to the westward of the most northerly point of Zeu-a-tau, in which several vessels were seen to enter,

This has been laid down by some missionaries as a safe and convenient harbour. After clearing the east point, they steered a course from N. to N. W., keeping the coast pretty well on board. On the evening they hauled round a projecting head-land, which with a bluff point due west from this, distant about eight miles, form the entrance of Ten-choo-foo bay, in which the squadron anchored in seven fathoms water.

The anchorage being foul, by reason of shells and hard ground, the Clarence was immediately ordered to proceed to Mi-a-tau to examine its harbour. In the interim, an officer was sent to the governor of Ten-choo-foo, to notify the arrival and purport of the squadron; who, when he heard the embassador was on board the Lion, instantly sent off a present of fresh provisions and some fruit, and went afterwards in person to compliment his excellency. The governor had a numerous train of attendants, one of whom displayed, on the quarter-deck, an instance of the most abject servility, to the great surprise of the English spectators. He had occasion to communicate something to the governor as he passed along the deck, and he instantly threw himself upon his knees, and remained in that degrading posture all the time he was talking with him. The governor's countenance was not the least moved, and it was easy to perceive that it was the usual manner in which he was accosted.

The governor did not fail to invite the embassador and his suite, in the most pressing manner, to entertainments and plays on shore. He wished for an opportunity of shewing his excellency, on a small scale, what a magnificent reception was preparing for him by his sovereign against his arrival at the court of Pekin.

To a nation like the Chinese, among whom subordination in the various ranks and degrees of society is observed with unremitting strictness; who look up to the throne with the profoundest veneration, and whose minds were about to be impressed, from the

imperious example of their sovereign, with the highest degree of consideration for the English nation, heretofore held, if not in contempt, at least in disesteem, it was a matter of the highest importance, that the individuals who composed the embassy should adopt such a cautious and circumspective conduct as should avoid giving offence where it was so easily taken; and also endeavour to root out their prejudices, and conciliate their esteem, by examples of civility, courtesy and moral rectitude.

As the squadron was now pretty far advanced in the Yellow Sea, and likely soon to arrive at its place of destination, his excellency judged it expedient to cause a paper to be dispersed throughout the fleet, tending to put those persons, who composed the embassy, on their guard with respect to their general demeanor. This paper, which was publicly read to the crews and passengers of each ship, purported, that the success of the embassy depended on gaining the good-will of the Chinese; that this might also depend on the ideas entertained by them of the the disposition and conduct of the English nation, now to be judged of by their behaviour; that the unfavourable impressions retained by the Chinese against the English for irregularities heretofore committed at Canton, stamping them as the worst of Europeans, could only be effaced by a conduct diametrically opposite; and such a conduct only was likely to eradicate that settled enmity; that the meanest of the Chinese were supported by their superiors in all their differences with foreigners; and, if necessary, were ready to avenge his blood, of which a fatal instance had happened, not long since, to an Englishman, who most innocently, and very unintentionally, deprived a Chinese of life; he therefore recommended particular caution and mildness in every intercourse or accidental meeting with the poorest individual of the country.

His excellency, who was convinced there was no

necessity for recommending to Sir Erasmus Gower to make such regulations as prudence might dictate on the occasion, for the persons under his immediate command, nor to captain Mackintosh for the officers and crew of the Hindostan, trusted also that the propriety and expediency of maintaining the credit of the English name would secure their voluntary obedience; and that the same incentives would produce similar effects on every person concerned in the embassy.

His excellency declared, that as he should be prompt to encourage and report the good conduct of those who merited commendation, so he should be equally ready, in case of misconduct, to report with equal exactitude, and to suspend or dismiss the violators; and that, should injury be offered or done to a Chinese, or a misdemeanor of any kind be committed, punishable by the laws of China, they were not to expect him to interfere with a view of mitigating or warding off their severity.

His excellency had a firm reliance on lieutenant-colonel Benson, commandant of his guard, that he would strictly watch over the conduct of that body; that he would cause them to be exercised in all military evolutions, and suffer none to be absent without special leave, and in urgent cases. His excellency prayed, in the most earnest manner, that no person whatever belonging to the ships might be permitted, and he strictly enjoined that his suite, his guard, and mechanics, should not presume to offer for sale, or propose to purchase, the smallest article of merchandize, as the least appearance of traffic would compromise the dignity and importance of the embassy.

His excellency took occasion farther to observe, that however impelled by a sense of duty to promote the objects of his mission, and to inspect into the conduct, and punish the crimes of those whose improper behaviour, or disobedience of orders, should either endanger or retard the success of the embassy, or tarnish the credit of the English character; he should

on the other hand be always happy to be able to report and reward the merit, as well as to advance the interest and gratify the wishes of every person, as far as was compatible with the honour and welfare of the public.

It may be pleasant to the reader to be informed, that this paper produced the desired effect on the persons to whom it was addressed. Their conduct was meritorious and exemplary, and met with the approbation of the embassador, of which his excellency made a favourable report. It was such as was also highly extolled by a mandarine of rank, who constantly accompanied the embassy, and who declared, that an equal number of Chinese taken from the different ranks of society, would not have behaved themselves in a more orderly or decorous manner.

The next object of importance was, to know whether the squadron could be safely sheltered in the harbour of Mi-a-tau. The officer who had been thither in the Clarence to reconnoitre, soon after returned, and reported that that harbour did not afford them a secure retreat, on account of a dangerous reef of rocks that lay off the east end of the easternmost of the Mi-a-tau islands, called Chan-san, which could not be approached by the squadron nearer than where there were nine fathoms water. The Clarence, however, anchored in seven fathoms, in clayey ground, within a mile of the shore. The island was three miles long, and nearly as many broad; and was populous and well cultivated.

From this report it was determined, by Sir Erasmus Gower, to send an officer, previous to the squadron's sailing to the Gulph of Pekin, to survey the mouth of the river which fell into it from Tien-sing, that its safety might be ascertained. The Jackall was no sooner dispatched for this purpose, than a new pilot was recommended, well acquainted with the spot in question. He did not hesitate to affirm there was a commodious harbour within six miles of the Pei-ho,

or White-River, flowing from Tien-sing, with water deep enough for the largest vessels; and he drew a sketch of the place. As this man appeared to be more skilful in nautical affairs than the other pilots, much confidence was placed in him, and it was resolved to enter the gulph without farther delay.

The squadron got under way in the afternoon of the 23d of July, keeping the Mi-a-tau islands on the right. The weather moderate and clear; and the wind easterly. Soundings through the day from fifteen to nine fathoms.

Wednesday the 24th, the wind S. E. with moderate breezes and clear weather. Early in the morning the soundings decreased from fourteen to nine fathoms; and afterwards to six and a half fathoms. The Clarence, which had been sent a-head, fired several muskets as signals of danger. The ships wore, and stood off to E. S. E.

Thursday the 25th, light breezes from the south and south-west, with clear weather. Standing a little to the southward of west, under easy sail, the water shoaled from fifteen to seven fathoms. At midnight, having steered towards the west, the Clarence made the signal of danger; the ships hauled their wind to the south-east, and the Lion soon got into from six to ten fathoms.

In the morning of Friday the 26th of July, violent showers of rain, and in the evening tremendous claps of thunder, with continuous vivid flashes of lightning. The Jackall was discovered returning from the westward, environed with numerous Chinese junks; and from lieutenant, now captain, Campbell's report, who had been sent to explore, it appeared that no secure harbour was to be found on the shores of the river Pei-ho.

The Jackall, in going up the river, was hailed by some Chinese soldiers in a boat, who desired her to cast anchor. Soon after a mandarine, with several attendants, came on board; and being assured she

belonged to the embassy, enquired after the embassador, and what presents he had brought for his imperial majesty. When he had obtained all the information he could, as to the number and size of the ships, and how many guns they carried, he closed his interrogatories by declaring, that the emperor had given especial orders for the reception and accommodation of the embassy, and that he would provide whatever might be wanted. In the mean time the gentlemen of the Jackall accepted an invitation, and were hospitably entertained on shore; but strictly re-examined on the former points. The mandarine also enquired respecting the merchandize brought for sale at Pekin, and offered to get them deposited in the four christian churches. Trade and an Englishman were, in the minds of the Chinese, so associated, that nothing could exceed his surprize on being told that they had no goods for sale, that the persons of the embassy were not merchants; and that men of war never carried out, nor dealt in, any kind of merchandize.

The mandarines being informed that the ships were too large to cross the bar, gave orders for a sufficient number of junks to be got ready to bring the presents, and passengers, and baggage, on shore. An extensive building, near the river's mouth, had been prepared for the embassador's reception, supposing he would have remained there some days to recover himself from fatigue; and his excellency had the choice of travelling to Pekin in a sedan chair, in a two-wheeled carriage, or in a commodious vessel by water.

Soon after the Jackall's return, a prodigious quantity of live stock, fruit, and vegetables, were brought to the squadron in junks; and not being able to stow away the whole, the surplus was necessarily returned. The following is a list of the articles. Twenty bullocks, a hundred and twenty sheep, a hundred and twenty hogs, a hundred fowls, a hundred ducks, a hundred and sixty bags of flour, fourteen chests of

bread, a hundred and sixty bags of common rice, ten chests of red rice, ten chests of white rice, ten chests of small rice, ten chests of tea, twenty-two boxes of dried peaches, twenty-two boxes of fruit preserved with sugar, twenty-two chests of plumbs and apples, twenty-two boxes of ochrus, twenty-two boxes of other vegetables, forty baskets of large cucumbers, a thousand squashes, forty bundles of lettuce, twenty measures of pease in pods, a thousand water-melons, three thousand musk-melons, besides a few jars of sweet wine and spirituous liquors; together with ten chests of candles, and three baskets of porcelain. Not only here, but also at Turon bay, Chusan, and Ten-choo-foo, the squadron experienced the same hospitality; and they were gratuitously supplyed without having been previously demanded.

Two mandarines of rank, one in the civil, the other in the military department, numerously attended, came to the Lion to congratulate the embassador in the emperor's name, and in their own, on his safe arrival, after so long and perilous a navigation; and informed him they were ordered by their sovereign to accompany him to court. The civil mandarine, whose family name was *Chow*, had the title of *Ta-zhin*, or *great man*, annexed to it. He bore the honorary distinction of a blue globe placed upon his bonnet.

The name of the military mandarine, who had a brave, open countenance, was *Van*; but he, too, had the addition of *Ta-zhin*, or *great man*. His valour had been conspicuous in battle; he had received many wounds, and was not only honoured with the red globe upon his bonnet, but had also superadded a peacock's feather, taken from the tail. He was celebrious for his skill in archery, the bow and arrow being still in use there, and generally prefer-red to fire-arms. These gentlemen were received on board the Lion with every mark of attention and respect. A third person of high rank, of a Tartar

race, had also been appointed by the emperor as a principal legate, to attend the embassador; but being very timid of the sea, waited to receive his excellency on shore.

Between the highest mandarine or prime minister, and the lowest constable, there are nine classes, all vested with different degrees of authority. Each class is distinguished by a dress peculiar to itself, as well as by the colour and materials of the small globe or ball worn upon the bonnet. Thus it is that they may be known by strangers, and are pointed out to the people; by which a proper respect is always paid to their persons, and due obedience to their respective orders. Mandarines, it is also said, have a guard of infantry and cavalry always at command. These guards reside in tents pitched around the mansions of their masters.

Inquiry was made by the two mandarines, whether the letter brought by the embassador for the emperor was rendered into Chinese, and what were its contents, in order that they might be able to transmit to Pekin every possible information relative to the embassy. As this question was not urged on the authority of the court, the answer given was, that the original, with its translation, were locked up together in a gold box, to be delivered into the hands of the emperor.

But with regard to the presents, after which they sedulously inquired, they were formally instructed to demand a list of them, to be forwarded to the emperor. An ordinary catalogue could neither point out their qualities, nor their worth; nor be comprehended by any translation. They were, therefore, described by circumlocution, in all the pomp of oriental style.

The presents consisted of an orrery, a reflecting telescope, a celestial and terrestrial globe, several chronometers, or time-pieces, an air-pump, a machine, exhibiting the mechanic powers, five pieces of brass ordnance, muskets, pistols, swords blades, a compleat

model of a first-rate man of war of a hundred and ten guns, ornamented vases, various kinds of earthenware, a large burning glass, a pair of magnificent glass lustres, specimens of the productions of the manufactures of Great Britain in wool, cotton, steel, and other metals, representations of several cities, towns, churches, seats, gardens, castles, bridges, lakes, volcanos, and antiquities, of battles, by sea and land, dock-yards, or places for building ships, horse-races, bull-fighting, and of most other objects curious or remarkable in the dominions of his Britannic majesty, and other parts of Europe; also of some of the most eminent persons, including the royal family of Great Britain; the representations themselves being monuments of the arts by which they are made in their present advanced state.

The description at large, as it appears in the original work, was translated into Chinese, and done into Latin by Mr. Hiitner, tutor to Master Staunton; as had also been his majesty's letter to the emperor, for the purpose of giving the missionaries an opportunity of correcting any mistake which might have been committed in the Chinese translation, which, however, was understood sufficiently by the two mandarines to excite their admiration of its contents. Orders were given to prepare a number of junks to convey the whole across the bar, after which they were to be transhipped into different vessels, better adapted for the navigation of the river; other junks were provided to convey the persons and baggage of the embassy from the ships to the river, where proper vessels were also ready to receive them.

The sea junks which attended the ships were to the number of thirty, each about two hundred tons burden: the hold, by means of partitions, is divided into twelve compartments. The composition used for caulking the seams is made of lime and oil, with some scrapings of bamboo. It is very glutinous,

soon acquires solidity, is not combustible, and is impenetrable to water.

The weather was exceedingly favourable for transhipping the presents and baggage, for though done in the open sea, they did not sustain the least damage. The stormy season, however, was approaching fast, and something was to be resolved on to provide for the safety of the squadron, their present situation being ineligible. With respect to the Hindostan, it was thought desirable in her way home to touch at Chusan, provided leave could be obtained at Pekin for that purpose, which it was intended Captain Mackintosh, by accompanying the embassador, should solicit in person. He could not only procure there teas and silks on better terms than at Canton, but on his way to rejoin his ship, he might have an opportunity of observing the mode of fabricating the articles he usually carried from China, of which the East India company was anxious to gain information. His excellency recommended Sir Erasmus Gower to prepare to conduct the squadron, either to the Bay of Ki-san-seu, or to that of Chu-san, where proper conveniences might be procured for the sick, and refreshments for the crews; but trusted that the necessary supply of provisions would be paid for, and that no presents would be allowed to come on board for individuals.

While these preparations were making, under orders from the commander to his officers, his excellency wished to have the satisfaction of his company to Pekin. One of the brigs was to remain in the river Peiho to take him to the Lion, after which his excellency requested that Sir Erasmus would quit the coast of China, and not to revisit it till the ensuing month of May; the interval of which was filled up with general instructions of what ports he was to touch at, observing to be at Macao, to meet the embassador in the beginning of the following May.

Sir Erasmus Gower begged to decline the proposal of going to Pekin, deeming his presence with the squadron indispensably necessary. He should return to one of the bays mentioned, and after the health of the crews were re-established, proceed to accomplish the objects contained in the instructions for the public advantage. The mandarines having been applied to, procured from the viceroy letters to ensure good treatment for the Lion. The embassador and his suite were now preparing to quit her, on whose departure the crew cheerfully obeyed the orders of their commander, to man the yards as a token of esteem; loud cheers were given, and a general salute from the ships fired, which was a novel spectacle to the gaping Chinese.

It was on Monday the 5th of August, 1793, that the embassador, and the gentlemen belonging to the embassy, embarked on board the Clarence, Jackall, and Endeavour brigs, for the Pei-ho river; the servants guards, musicians, and other attendants, went with the baggage and presents in the junks. The wind being favourable, they crossed the bar in a few hours, and in the afternoon came to, for a short time, on the southern bank of the river, opposite a small village, called Tung-coo, which being a military post, the troops were drawn up as a mark of respect to his excellency. From this place the vessels were dragged or trailed along, by men upon the river's bank, to another village named See-coo, and thence to a town called Ta-coo, where a great number of yachts and other boats were lying ready for the accommodation of the embassy.

As the learned author of the embassy to China has not thought proper to give a description of the *naval procession* on this extraordinary occasion, our readers may not be displeased at our having supplied this deficiency, which we understand was as follows:

*First.* The grand mandarine and his suite, in five large covered barges—afterwards, in

*Yacht*, No. 1. His excellency the earl of Macartney.

No. 2. Sir George Staunton, Bart. secretary, and Mr. Staunton, page of the embassy.

No. 3. Mr. Plumb, the Chinese interpreter.

No. 4. Lieutenant-colonel Benson, Lieutenant Parish, and Lieutenant Crewe.

No. 5. Captain Mackintosh, of the Hindostan, Mr. Maxwell, secretary to the embassador, Dr. Gillan, physician, and Mr. Hiitner, preceptor to Master Staunton.

No. 6. Mr. Barrow, mathematician, comptroller of the Household, &c. Mr. Winder, joint secretary of the embassador, and Mr. Baring, son of Sir Francis Baring.

No. 7. Dr. Scott, surgeon to the embassy, Dr. Dinwiddie, professor of astronomy, &c. Mr. Hickey, portrait painter, and Mr. Alexander, draftsman.

*Lastly*. Five other large junks, which contained the mechanics, soldiers, and servants, closed the procession.

The yacht prepared for the reception of the embassador, into which he entered on their arrival off Tacoo, was spacious, richly ornamented, and contained a greater number of glass panes than the other yachts, whose windows, instead of being glazed, were filled up with a transparent kind of paper, fabricated in Corea from cotton, and is not easily affected by rain or any other weather. His excellency's apartment comprised most of the vessel, and consisted of an anti-chamber, a saloon, a bed-chamber, and a closet. The saloon was furnished with a square sofa, or *seat of honour*, such as are met with in the mansions of the chief mandarines, which they always occupy on giving audience. On each side of the yacht, from head to stern, was constructed a gangway, projecting two feet beyond the gunwale. Upon this the crew manœuvred the vessel, and by it the domestics were prevented from passing through the principal rooms,

The cabin allotted for the crew was next the stern, in a corner of which was a small altar, with an idol upon it, and around it perfumed matches were kept constantly burning.

Besides the embassador's, there were sixteen other yachts in the procession, independent of lighters for conveying the presents and luggage; and the junks for the accommodation of mandarines of various ranks, as well as other Chinese, ordered to attend on the occasion, were equal in number to those which composed the embassy. Many of the yachts were eighty feet long; and, notwithstanding they were encumbered with upper works, drew only eighteen inches water. The cabins in them were lofty and airy; above them were berths for the crew; beneath, lockers for stowage. Some had coloured curtains on the outside, reaching from stem to stern, to keep out the sun, and shutters to ward off the rain. Some of these boats, in which were several cooks, contained provisions for the embassador's table, to preclude the necessity of going on shore, or prevent procrastination whenever the wind and tide were favourable for their passage.

Every magnificence was displayed out of compliment to the embassy. A considerable guard had been appointed to attend the embassador on shore, but the yachts could each only take in a small number. One of these always accompanied an European on shore; his presence, while it claimed for the stranger government protection, might also have been intended as a spy upon his actions.

The transhipping of the luggage, of which there were six hundred packages, occupied nearly three days. While this was doing, the chief directors of the route, Chow-ta-zhin and Van-ta-zhin, made occasional complimentary visits to the embassador, as well as to see that he was properly accommodated. Their politeness extended to the principal gentlemen of the embassy, who were likewise honoured with visits of civility. The inferior mandarines were not less atten-

tive to the accommodation and comfort of the passengers belonging to the embassy, and even the Chinese soldiers and sailors evinced a disposition to please beyond the ordinary line of duty.

The gentlemen in each yacht were served, after the manner of the east, with a separate table, in which faint attempts were made to imitate English cookery. Stewing, however, was their most usual method of preparing animal food, of which beef and pork were the most plentiful. The meat was cut into small square pieces, vegetables of various kinds were mixed with it, and seasoned and served up with piquant savoury sauces. They had abundance of the common fowls of Europe; but the greatest delicacy, and most costly article of the table, was the swallow's nest, and the fins of sharks. Both these yielded abundance of rich nutricious juices; but, like the turtle, were necessarily dressed with strong spices to render them zestful.

Roasting, it appeared, was very little practised in China—in this mode of cooking oil was made use of, which not only gave a high gloss, like varnish, to the meat, but proved singularly unpleasant to the palate. The mandarines, however, imagining roast meat would be acceptable, gave orders to their cooks to prepare some in this way; and pigs, turkies, and geese, were brought whole upon the table.

Baking was as seldom put in practice as roasting; indeed, not a proper oven was perceived in this part of the country. Boiled rice is generally used at meals as bread. Its expansion in boiling facilitates its digestion, and renders it as wholesome as fermented dough; but though they do not *bake*, they *steam* bread, and it is done in the following manner:

Wheaten flour, mixed with water, is made into cakes; these are put upon *latticed* shelves, fixed within a frame of wood, of a convenient size, open only at the bottom: this frame is then placed over a vessel of boiling water, the steam of which, ascending through

the lattice-work, causes the cakes to rise or swell to the size of a common orange, leaving a thin, softish crust over the whole surface. In this state they are eaten by the Chinese; but when sliced and toasted, they were a tolerable substitute for hard-baked bread. Some of these cakes were rendered very palatable by the admixture of aromatic seeds. Their flour is obtained mostly from buck-wheat, which (as well as the other species) is cultivated in many provinces of China. It is perfectly white when separated from the bran.

Jars of wine, or rather of vinous liquor, were distributed among all the yachts, but it was generally disliked. It was of a yellowish colour, by no means pellucid, and of an acescent quality. The Chinese seemed to have been better acquainted with the art of distillation; for the spirit supplied was very palatable. Its strength exceeded the *common proof;* it was perfectly clear or transparent, and void of empyreumatic odour. This spirit, in the southern provinces, was distilled from *rice;* in the northern, from *millet*, and was called by the Chinese *show-choo*, or *hot wine*.

Fruits of various kinds, such as peaches, plums, apples, pears, grapes, oranges, and apricots, were regularly supplied; and, as might be expected, green and bohea tea in abundance. Its taste, however, was not relished so well as the *London tea*, owing, perhaps, to its having been recently gathered. Their green tea was imported, chiefly, from the province of Kiang-nan, and the bohea from that of Fo-chien. The Chinese, in general, use no sugar in their tea—and even tea among the lower class appeared to be a luxury. Loaf sugar was unknown here, nor did they import the crystallized sugar of Cochin-china, but the province of Fo-chien supplied them with brown sugar and sugar-candy.

An interchange of visits took place between the

embassador and the viceroy of the province, as venerable in years as refined in manners. He was of the highest rank yet seen in the country, and by command of the emperor, had come a hundred miles from his usual residence, to congratulate his excellency on his arrival into the territories of China, and to superintend the purveyance of every thing that could redound to the honour of the one, or the comfort of the other. In this visit the constraint of eastern forms, especially on the introduction of tea, was dispensed with, and his excellency was received with a degree of ease, attention, and politeness, seldom surpassed in the more polished courts of Europe. Tea was handed in cups with covers, and oblong saucers, without either cream or sugar; each cup was infused separately, and the leaves were left at the bottom of the cup. A short time after the embassador's return to his yacht, he received, very unexpectedly, from the viceroy, a splendid repast, consisting of twenty-four dishes, and three others, not less expensive, and of equal covers, were also sent to the three gentlemen who accompanied his excellency on the visit.

The viceroy resided at the principal temple of Ta-coo, consecrated to the god of the sea, under the name of *Toong-hai-vaung*, or king of the eastern sea.

On the morning of the 9th of August, every necessary arrangement having taken place, and his excellency's wish being known, the signal was made for sailing. This signal, always used upon the water, is not made with guns, but with an instrument called in Chinese *loo*, and by Europeans in China *gong*. It consists of circular rimmed plates of copper, in which there is mixed a certain portion of tin, or spelter, to make it sonorous. These being struck with a wooden mallet, covered with leather, emit a sound which may be heard at two or three miles distance. Authorita-

tive notice, on shore, especially among troops, is made, not by drums, but by striking two pieces of hollow bamboo together. The drum is no martial instrument, being used only in their temples.

The meandrous course of the river, which rendered a wind that was fair on one stretch, foul on another, retarded the progress of the embassy, but afforded a favourable opportunity of viewing its banks and circumjacent places. Each side was adorned with pleasant villas and delightful gardens, and the fields were in the highest state of cultivation; many of them covered with Barbadoes millet, *holcus sorghum*, the tallest of the vegetable tribe, growing to the height of ten or twelve feet, and is said to increase a hundred fold. At night its banks were splendidly illuminated with a diversity of lights, from lanterns of transparent party-coloured paper. Lights were also affixed to the mast-heads of the vessels; their number and situation denoting the rank of those on board. The shrill and repeated sound of the *loo*, and the constant buz and threatening sting of musquitos in the night-time, were both singularly troublesome.

Not only during the first, but also in the second day's progress up the Pei-ho, were the banks lined with innumerable spectators of both sexes, and of all ages; but the river itself was literally covered with boats of every description. Its shores, on one side, were crowded with stacks or pyramids of salt, from two to six hundred feet long, and about fifteen feet high. Two hundred and twenty-two entire stacks were counted, besides many others incomplete; which, from a nice calculation, were supposed to contain six hundred millions of pounds weight: this was an article of great revenue to the crown.

On the third day they reached the port of Tien-sing, the general mart for the northern provinces of China. The city is built at the confluence of two rivers; the one, upon which the embassy was to proceed to Tong-choo-foo, was also called *Pei-ho*, the other *Yun-*

*leang-ho.* A bridge of boats extended across the rivers, which occasionally separated, to admit a passage for vessels. Temples and handsome edifices were built along the quays, contiguous to which were yards and magazines for naval stores, and shops and warehouses for retail trade.

A pavilion was erected in the centre of the city, opposite to which the embassadorial fleet stopped. The viceroy, who had come by land from Ta-coo, was in waiting here for the embassador. His excellency disembarked with all his suite, attended with his whole train of servants, guards, and musicians, and was received on shore by the viceroy and the legate, according to the following order of parade:—

Three military mandarines, or principal officers:
A tent, with a band of music outside the tent:
Three long trumpets:
A triumphal arch:
Four large green standards, with five small ones between each, and bowmen between each small colour:
Six large red standards with matchlock men, and five small colours between each standard:
Two large green standards, with swordsmen between each:
Music tent:
Triumphal arch:
A body of Chinese troops:

At the upper end of the pavilion, to which the viceroy conducted the embassador with the principal gentlemen, was a sanctuary, in which the majesty of the emperor was supposed to be constantly present; and they were given to understand that a respectful obedience should be paid to that majesty: this was accordingly performed by a profound inclination of body.

After an interchange of compliments, and the ac-

customed refreshments of tea and sweetmeats, the legate informed the embassador that the emperor was at his country residence at Zhe-hol, in Tartary, at which place it was his intention to celebrate the anniversary of his birth-day, which happened on the 13th of the eighth moon, corresponding with the 17th of September; and that it was his desire to receive the embassy in that city.

The embassador and the gentlemen returned to their respective yachts, and soon after a sumptuous repast, with the addition of wine, fruit, and sweetmeats, was sent to them from the viceroy, as he had done before at Ta-coo; and his hospitality was even extended to the servants of the embassy, to whom he also sent a plentiful dinner. One among the many instances of polite attention to the embassador, was a temporary theatre, which he had caused to be erected opposite to his excellency's yacht, where a company of comedians, at various times of the day, exhibited dramatic pieces and pantomimes. Boys or eunuchs played the female characters.

In the evening, the weather proving favourable, the yachts and vessels proceeded up the Pei-ho. Its sides, in some places, were banked up by the lower stalks of the millet; in some reaches, by parapets of cut granite; and at others, by causeways of the same material, and sluices were made here and there to let off water to irrigate the adjoining lands. During the progress up the river, they were assisted by the tide for thirty miles from Tien-sing, where it ceases to flow; but in light airs, and contrary breezes, the Chinese sailors frequently made use of a couple of *sweeps*, or large oars, which are never lifted out of the water. When rowing was impracticable, men were employed upon the banks to trail the vessels by ropes. There were fifteen men to each yacht, and upwards of five hundred were occupied on this service.

Tien-sing, the translation of which is *heavenly spot*, is in length nearly equal to London, and contained,

by information, seven hundred thousand persons. Some of the houses are built with stone, but mostly with brick, of one story only, though there are some of two stories high. Every house is well filled, inasmuch as the existing branches of the same family dwell in small apartments under the same roof. The best or most durable bricks are of a bluish or lead colour; some few are red, and others pale brown: the last kind, used for the mean dwellings, are only baked in the sun; the blue bricks are burnt in a kiln by a close wood fire, the blaze of which is not allowed to touch them; and those which are exposed to its flame acquire a reddish colour. In the making of bricks from the clay, thin layers of straw are placed between them, without which they would, as they dried, run or adhere together; so that the Chinese, like the children of Israel, could not make bricks without straw.

The lands, as on the other side of Tien-sing, were many of them covered with millet, which with rice, and some corn, are the principal objects of cultivation; yet the people have experienced the dreadful effects of famine from the destruction of locusts, or the fall of torrents from the mountains. In some spots were seen growing a species of the *dolichos*, not very dissimilar to the kidney bean; in others fields of beans and various kinds of pulse, and likewise *sesamum*, and other plants whose seeds produce oil. Plantations of the tea-tree, of a dwarf size, were also descried. The leaves had a near resemblance to a myrtle. It was the season for plucking the blossoms, the smallest of which, when carefully dried, possess the highest flavour.

The number of junks seen upon the river was incalculable. Exclusive of those busied in the ordinary course of commerce, not less than a thousand, of a large size, were employed in the service of the government between Tong-choo-foo and Tien-sing, for the purpose of gathering such taxes as were paid in kind,

and a part of the corn thus collected, was deposited in the public granaries throughout the empire. It is usual for the wives and families of the officers and sailors to live constantly upon the water: children are born, brought up, and spend their whole lives on board; every land is foreign to them, and the water may be called their proper element. Each vessel, on an average, contained fifty persons; and estimating the total of the boats at two thousand, it will appear that a hundred thousand souls move and live only upon the surface of that river.

There are no bridges thrown across the river Pei-ho, as they would obstruct the navigation; but several of hewn stone, and of decent architecture, were seen over branches of that river, as well as over canals. Near the ruins of one of these bridges, dilapidated by an inundation, stood a large palace, in the midst of a garden, inclosed within a wall, having a treble gate to the water-side. It was one of the emperor's seats, and was the occasional residence of some of the family.

Besides the musquitos already mentioned, there are other insects very troublesome, as well on account of their sting, as of the uncommon noise they make. Of this last kind was the *cicada*, whose din, produced by the motion of two flaps which cover the abdomen of the male, was a signal to allure the female to amorous dalliance, who is not furnished with these flaps. A species of moth, as large as a humming-bird, was frequent in this quarter.

The travellers, in their slow progress up the river, often quitted and rejoined the yachts, to observe more minutely objects on shore which struck the fancy: this conduct was watched with extraordinary jealousy; and they were given to understand that this freedom was displeasing to the legate. In short, the interpreter discovered, by several vague intimations, occasionally let out in familiar conversation with the mandarines, that some *recent dissatisfaction*

had been conceived at the court of Pekin against the English nation. Great circumspection had been observed by the interpreter, in acquiring this important information; nor was it without much address that he extorted from them the following explanation.

In the year 1791, the Emperor of China sent an army into the country of Thibet, to drive back the Rajah of Napaul, who had made predatory excursions thither; and in the contest, his army met with more obstacles, greater resistance, and heavier losses, than had been foreseen from so feeble an enemy. Some of the Chinese officers, mortified at their ill success, fancied they saw opposed to them not only European tactics, but European soldiers; and reported at court, that they perceived *hats* as well as *turbans* among their enemies; and they concluded the former must have been English. Thus it had been *politically* and industriously reported among the people of China, that the English had, in the above instance, actually afforded assistance. Though the embassador gave no credit to either fact, he was induced to believe, that the bare assertion would have the power to alienate any previous favourable disposition of the country towards the government of Great Britain.

It had been a policy practised in the east, prior to a meditated attack on the territories of a foreign prince, to send an embassy thither, under the mask of friendship, the better to discover its real situation and strength. The British government knew well with what a jealous eye the Chinese viewed their acquisitions in Bengal, and the prejudices which might be raised on the score of ambition; and the embassador was furnished with arguments to allay their suspicions on that head. But it was not within the compass of human wisdom to foresee, and prepare against, an *imputation* of having interfered hostilely with the arms of China, which had never taken place; nor was it till the following year, when his excellency arrived at Canton, that he was informed, from Eng-

land and Calcutta, what were the circumstances upon which an assertion so groundless had been founded. It was notorious, that the governor-general of Bengal conducted himself, in this business, with strict neutrality, and with great propriety and attention towards the Emperor of China; declaring to the Rajah of Napaul, that the only assistance he should give, was to endeavour to extricate him from a ruinous war, by mean of conciliatory negociation between the commanders of the Thibet and Chinese forces.

It is probable, that if the embassy intended for China, in the year 1787, had not failed through the premature death of Colonel Cathcart, then appointed British minister to the court of Pekin, any misunderstanding might have been prevented; or, if even the circumstances connected with the Thibet war had arrived at Canton before the present embassador quitted its vicinity to proceed to Tien-sing, it is possible it might have been in his power to refute the calumny: His excellency took pains to, and absolutely did, convince the principal mandarines and Chinese officers of state, that the story was unfounded; but he was not able to effect so much with the Tartar legate, over whom the others had no influence; who alone was allowed to correspond with the government, and who evinced no disposition to make a favourable or just representation of the English or the embassy. The legate, either from mistrust or malevolence, even refused to send the embassador's letters to Sir Erasmus Gower, by the messengers of government, though he knew his excellency had had the honour of receiving a packet from the emperor. Without the legate's permission, there was no mode of conveying any intelligence whatever; of course he was secluded from corresponding with the company's commissioners at Canton. Thus the most necessary intercourse was obstructed, without the least prospect of redress; inasmuch as the legate was the intimate creature of

Collao, the prime minister of the empire, whose sentiments were, doubtless, in perfect unison.

It may be proper to observe, in this place, that the government of China has not established any mode of conveying letters of correspondence for the conveniency of the people. The emperor only receives and sends *expresses*, which are conveyed on horseback to and from every part of his extensive dominions, at the rate of a hundred and fifty miles a-day. For the ordinary exigencies of government, as well as for the use of the mandarines and officers of state, there are slower couriers appointed, who are sometimes, though rarely, permitted to carry letters or packets to individuals. But information is conveyed to, or withheld from, the body of the people, just as the government may deem it expedient.

The perverse circumstances above-mentioned augured an unfavourable success to the embassy, which was proceeding, but slowly, towards the capital. The river being shallow, much mud, or diluted clay, was disturbed from the bottom; and this, added to what was occasionally washed down into it from the mountains, rendered the water turbid and scarcely potable. The Chinese, however, have an easy mode of refining it. A small quantity of allum is put into the hollow joint of a bamboo, in which several perforations are made. A convenient quantity of water being taken from the river, it is to be stirred about three or four minutes with this bamboo; by which the allum unites with the earthy particles, and precipitates them to the bottom of the vessel, leaving the water pure and transparent.

The Chinese of rank use distilled water for their own consumption; and even the lower classes never drink it till tea or some other salubrious herb has been infused in it. Not only is this infusion drunk hot, as common beverage, but even wine and every other liquid, is made warm before taken. The same

mode prevails in the hot climate of Hindostan. The Chinese, however, enjoy, in the heat of summer, the grateful coolness of ice; but it is principally with fruits and sweetmeats.

Notwithstanding tea is the common beverage of all the Chinese, and is presented to visitors at all hours; yet there are some, especially in the northern provinces, who are fond of spirituous liquors, and are disposed to be very convivial. The mandarines seemed to indulge in luxury; they made, daily, several meals of animal food, highly seasoned; each repast consisting of many courses. The intervals were employed in smoking, and chewing the areca nut.

The Chinese of rank are in general courteous, familiar, and affable; but they are vain and national. The two Mandarines who had the direction of the embassy, took much pleasure in satisfying the inquiries made respecting their own country. The legate was more taciturnous, and seldom entered into conversation with the embassador, who, very prudently, forbore to ask questions about China in his presence. He visited his excellency pretty often, though he travelled, in great pomp, part of the way by land, in a sedan chair, preceded by soldiers and servants clearing the way before him.

The embassy, in its passage up the river, was saluted by a discharge of three guns at every military post, some of which were passed every day when the high road was near the river. This road, though narrow, was good; carriages were few; and those only with two wheels, and without springs. Gentlemen commonly travel in sedan chairs, chair palanquins, or on horseback,—and ladies in close litters, suspended between mules; and even in this manner only for short distances. There are no coaches in the country.

The ancient custom of applying sails to carriages by land, is not entirely laid aside. These vehicles are carts or double barrows made of bamboo, having one large wheel placed between them. Two poles,

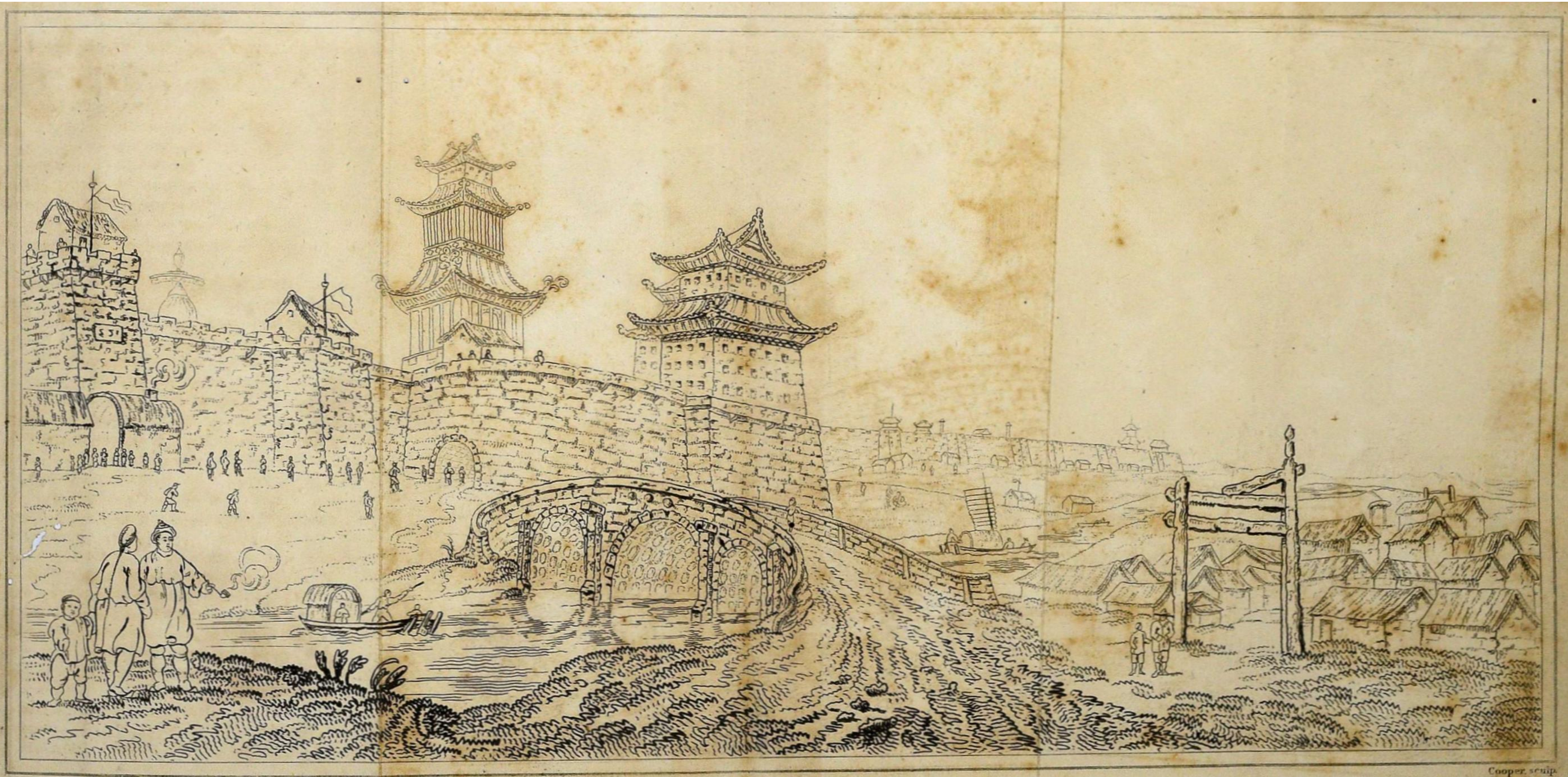
rising from the opposite sides of the cart, serve as masts, upon which the sail, consisting only of a mat, is set. But this can only take place when the cart is going before the wind. In other cases, the machine is drawn by one man, while another, behind, not only keeps it steady, but impels it forward.

On the 16th of August, the yatchts having proceeded as far up the river Pei-ho as the depth of water would admit, came to anchor within half a mile of Tong-choo-foo, which is ninety miles distant from Tien-sing, and within twelve miles of the city of Pekin.

It appeared that the Lion and Hindostan sailed from the gulph of Pe-chee-lee on the 8th of August, and on the 12th passed through the straits of Mi-a-tau.—While they remained at anchor in the gulf, they found the latitude of the anchorage to be thirty degrees fifty-one minutes and a half north, and longitude by time-keeper, a hundred and seventeen degrees fifty minutes east; and that the latitude of the mouth of the Pei-ho or White River was thirty-nine degrees north.

The letter which had been sent from the viceroy of Pe-chee-lee to the governor of Ten-choo-foo, in favour of Sir Erasmus Gower, had been the mean of procuring him every assistance of which he stood in need. From thence he went to take a minute examination of the bay of Ki-san-seu, sometimes named Zeu-a-tau, where he arrived on the fifteenth of August, and found it spacious, the depth of water from nine to five fathoms, the ground or anchorage tough, and that ships were secure in all directions; but that wood and water were at some distance in the bay.—The country, however, had a barren appearance, the inhabitants were poor; and it was doubtful whether proper accommodations might have been procured for the sick and convalescents. Sir Erasmus, therefore, determined to go to Chu-san, where he had more favourable prospects, and for this place the squadron shaped their course.

289 TO 293 PAGES MISSING IN BOOK




VIEW OF ONE OF THE WESERN GATES, OF THE CITY OF PEKIN.

There is no state religion acknowledg[...] raged in China. The faith of most of th[...] people is that of Fo; many of the Mandari[...] another, and that of the emperor different from th[...] But the temples consecrated to religious worship a[...] scarcely distinguishable from common dwelling-houses. The circular lofty structures, called, by Europeans, Pagodas, are of various kinds, appropriated to various uses, but none for religious worship. In many instances there is a similarity in the exterior forms of the religion of Fo and that of the Romish church. Upon the altars of the Chinese temples were placed, behind a screen, an image of *Shin-moo*, or the holy mother, sitting with a child in her arms, in an alcove, with rays of glory round her head, and tapers constantly burning before her.

The temples of Fo contain more images than are met with in most christian churches. There was one female figure particularly prayed to by unmarried women who desire husbands, and by married women who wish for children. But as the doctrine of Fo admits of a subordinate deity propitious to every wish that can be formed in the human mind; as the government of the country never interferes with mere opinions, nor prohibits any belief which may not affect the peace of society, it is no wonder it should spread among those classes of the people who are dissatisfied with the ordinary events of nature. Thus, from extreme superstition, the temples are particularly frequented, and the superintendant deity first consulted, previous to the undertaking of any thing of importance; whether it be to enter into the matrimonial state, to set out on a journey, to make or conclude a bargain, or any other momentous event. There are various methods of doing this, one of which is; a piece of wood, of six or eight equal sides or surfaces, each having its particular mark, is thrown into the air; the side which is uppermost,

VIEW OF THE TOWER OF THE THUNDERING WINDS, ON THE BORDER OF THE LAKE SEE-HOO, TAKEN FROM THE VALE OF TOMBS.

close: pasturage ground was rare; the animals for food and tillage being foddered and fed chiefly in stalls. Straw cut small and mixed with beans was the food for horses. Ploughing was performed by oxen; it being too cold here for buffaloes. Their horses were strong and bony, but no means employed to improve their breed. Many of them were spotted as regularly as a leopard, occasioned by crossing those of contrary colours. Mules were more valuable than horses, requiring less food, and performing more labour. The cottages of the peasantry were snug and comfortable; not united into villages, but thinly dispersed. They had neither fences nor gates to guard them against wild beasts or thieves; for the latter, perhaps, it were unnecessary, as robberies are seldom committed, notwithstanding the punishment is not capital, unless accompanied by acts of violence.

The wives of the peasantry are truly industrious; besides managing every domestic concern, they exercise such trades as are carried on within doors. They rear silk-worms, spin cotton, and work at the loom; in short, they are the only weavers in the country. Their husbands, however, tyrannise over them, keep them in the greatest subjection, and, on occasional quarrels, make them attend behind the table as handmaids. The old generally reside with the young, to temper their impetuosity; and obedience to them is enforced as well by habit as by moral precepts. Moral maxims are inculcated by the aged to the younger offspring; and plain sentences of morality are hung up in the common hall, where the male branches of the family assemble. A tablet of ancestry is in every house, and references in conversation often made to their actions. By their periodical visits to the tombs of their forefathers, the most remote relations become collected and united. The child is bound to work and provide for his father and mother; and the brother, for the brother and sister in extreme distress; a failure in this duty stamps them

with such ignominy, as to preclude the necessity of a positive law to this purpose. Even the most distant relative, if in ill health, or in misery, has a claim on his kindred for charitable assistance. This is the reason why no mendicants, nor spectacles of distress, are to be seen.

By the custom of the country, persons on horseback, meeting their superiors, dismount as a token of respect. This civility, which was shewn to some English gentlemen in an excursion into the country, prevails in other parts of the East. Similar homage is exacted from all the residents at Batavia, by the Dutch governors and counsellors of the Indies. From this instance, as well as from others in Java and other places, it is clear, that China gives the *ton* to all the countries bordering upon its seas. Every sovereign in the eastern part of Asia, for example, affects the distinction of yellow colour in imitation of the emperor.

The presents and baggage, which hitherto had come by water, were now to be conveyed by land to the emperor's autumnal palace. Such as were liable to receive damage by the jolting of vehicles without springs, were destined to be carried by men; and from a pretty nice calculation it was found that about ninety waggons, forty hand barrows, two hundred horses, and nearly three thousand labouring men, would be wanted for this business.

In China, bulky and heavy packages are carried by men. To each side of the load are fixed two strong bamboos. If four men (two to each bamboo) be not equal to its weight, two other bamboos, shorter than the first, are fastened to the extremities of each of the original long ones. These eight extremities are brought to rest on the shoulders of eight men. More bamboos being affixed to these, the strength of a greater number of men may be applied in a geometrical proportion; each of whom would sustain an

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These abject prosternations are required not only from the subjects and tributary princes of the empire, but also from all strangers, however exalted; and the legate now urged the embassador to perform them before the throne. His excellency had previously received his majesty's instructions on this head, and was therefore prepared to answer the demand. He well knew the tenacity of the court in exacting ceremonies as degrading to one part as exalting to the other, and which rendered embassies singularly grateful to the Imperial court. It was this haughty spirit which dictated orders to write, in large Chinese characters, not only upon the flags of the yachts up the river Pei-ho, but likewise upon those which accompanied all the land carriages of the embassy, EMBASSADOR BEARING TRIBUTE FROM THE COUNTRY OF ENGLAND.

His excellency, considering that he might be supposed ignorant of the meaning of those characters, forbore to make any formal complaint; in which, in the first place, he augured no success, and in the next, that it might be the means of abruptly terminating the embassy. The characters, however, had attracted general notice; they were inserted in the court gazette; they would be recorded in the annals of the empire, and would find their way into Europe through the medium of the Russian residents, and the missionaries in the capital. The embassador was therefore particularly on his guard with respect to any act of his own, which might lessen the dignity of his sovereign; and he had the example of a Russian embassador who had refused to comply with the ceremony in question, until a regular promise had been made for its return in like manner to his sovereign. The Dutch, who in the last century had meanly submitted to every degrading ceremony in the hope of obtaining profitable commercial advantages, complained afterwards of being treated with neglect, and of being

dismissed without experiencing the smallest mark of favour.

Some of the missionaries, it was said, had represented Holland to the Imperial court as a spot upon the general map, bearing a political weight or importance only in proportion to its size. The same standard, in all likelihood, may have been applied with regard to England. From such partial and inaccurate statements it is fair to conclude, that the Chinese ministers may have formed a scale by which they measure the relative importance of the different powers of Europe, by the degrees of reluctance with which they accede to their claim of arrogated superiority. But in any point of view, there were cogent reasons for imagining, that the disposition of the Chinese empire, at that time, would refuse a return of favours for any sacrifice of dignity. The prejudices imbibed against the English on their first appearance at Canton; the effect of subsequent misrepresentations; and, to complete all, the recent circumstances of the Thibet war, notwithstanding the magnificence which every where accompanied the embassy, worked so strongly upon the minds of every Tartar chief, as to excite a mistrust of its designs, as if intended ultimately to share with the Tartars themselves some portion of their ruling power.

The legate, who was not ignorant of the case of the Russian embassy, flattered himself of being more successful with the British embassador, from whose tractable disposition he had built upon unconditional compliance; and to his own efforts he added those of the mandarines who were the most intimate with his excellency. These, however, were astonished when they heard that, for a similar act done by an European, Timagoras, in the character of embassador to a powerful monarch of the east (of Persia) was condemned to suffer death by his countrymen, the Athenians, as soon as he returned home, for having de-

graded the nation who deputed him; that less acts of humiliation had, in modern times, been severely censured; the actions of men in a public capacity being looked upon as the acts of those whom they represent; and that ceremonies practised by subjects to their sovereigns, ought not to be exacted from the representatives of foreign princes.

The point in question being of the utmost delicacy, his excellency was disposed to gratify the declared wishes of the emperor, as far as lay in his power, without committing the dignity of his sovereign. He did not, therefore, refuse to accede to the ceremony of prostration, but offered to perform the whole on a condition which, while it did not abstract any personal respect from the emperor, removed the principal objection attached to it as an act of homage or dependence in his representative character. This condition was, "That a subject of his Imperial majesty, of equal rank to his own, should perform, before the picture he had with him of his majesty, dressed in his robes of state, the same ceremonies that the embassador should be directed to do before the Chinese throne." It was of the utmost moment that this proposal should be accurately translated and forwarded to the emperor, to avoid the possibility of misconception. The embassadorial interpreter, though a native of China, from long disuse, was unacquainted with the style requisite for the palace, and from having been for years, while at Naples, accustomed to write only in Latin and Italian, the Chinese characters, amounting to eighty thousand, were no longer familiar to him. The missionaries scarcely ever attempted to write official papers; they were generally done by Chinese bred to letters. The legate, who had directed his views to unconditional compliance, resisted any compact in writing, and was unwilling to afford any assistance to that purpose. After repeated applications, some of the missionaries were introduced to his excellency, but with the utmost circumspection, and in

presence of the legate and a Portuguese jesuit, whom the emperor had raised to a higher dignity than any of his brethren. This man was inimical to the interests of Great Britain, and encouraged the legate to resist the request which the embassador had made to remove to the capital, where he might more conveniently prepare for the journey to Zhe-hol; but the governor of the palace of Yuen-min-yuen, superior in power to the legate, interposed on the occasion, and the embassy was immediately ordered to take residence at a palace in the city of Pekin.

Here, a Chinese christian, qualified in all respects for the office of translator, recommended to his excellency by a missionary well affected to the embassy, undertook, privately, the business, though not without much risk on his part, provided it should be known to the legate; for it is a notorious fact that a native of Canton had been formerly put to death for writing there a petition for the English. Care, however, was taken in this case to prevent detection. The translation was copied, fair, by Master George Staunton, (who not only, occasionally, officiated as interpreter, but who had acquired a wonderful facility in writing the Chinese characters) and the original rough draught destroyed in his presence.

The memorial of his excellency was addressed to Ho-choong-taung Colao, first minister of the empire, and represented, that "his majesty the King of Great Britain in sending an embassy to his majesty the Emperor of China, fully intended to give the strongest testimony of particular esteem and veneration for his Imperial majesty; that the embassador entrusted to convey such sentiments was earnestly desirous of fulfilling that object of his mission with zeal and effect; that he was ready likewise to conform to every exterior ceremony practised by his imperial majesty's subjects, and the tributary princes attending at his court, not only to avoid the confusion of novelty, but in order to shew, by his example in behalf of one of

the greatest as well as most distant nations on the globe, the high and just sense universally entertained of his imperial majesty's dignity and transcendent virtues; that the embassador had determined to act in that manner without hesitation or difficulty, on this condition only, of which he flattered himself his imperial majesty would immediately perceive the necessity, and have the goodness to accede to it, by giving such directions as should be the means of preventing the embassador from suffering by his devotion to his imperial majesty in this instance; for the embassador would certainly suffer heavily if his conduct, on this occasion, could be construed as in any wise unbecoming the great and exalted rank which his master, whom he represented, held among the independent sovereigns of the world; and this danger could be easily avoided, and the satisfaction be general on all sides, by his imperial majesty's order that one of the officers of his court, equal with the embassador in rank, should perform before his Britannic majesty's picture at large, in his royal robes, and then in the embassador's possession at Pekin, the same ceremonies which should be performed by the embassador before the throne of his imperial majesty."

This paper, after being properly addressed, was shewn to the legate, who appeared to approve its contents, and undertook to forward it immediately to the emperor, whose acquiescence was little doubted. In this persuasion, the articles destined for Zhe-hol were brought back to Pekin, among which were six neat brass field-pieces, on light carriages. His excellency had them tried by the artillerymen, previous to their exhibiting before his imperial majesty, and they were fired several times in a minute. This celerity in military manœuvres was disrelished by the legate, who affected to say, that the imperial army was equally as expert. He countermanded the orders respecting these field-pieces, which before were

destined for Zhe-hol, but now to remain at Pekin. The few barrels of gun-powder, intended for salutes, and the musquetry of the embassador's guard, were both become objects of suspicion, and were desired to be given up. The request was immediately complied with as a matter of indifference. In short, the whole tenor of his conduct displayed a mind agitated by suspicion lest the Chinese should attribute superior prowess to the English nation. Even in a display of the presents, to gratify curiosity, he was so illiberal as to suppress the least emotion of approbation.

In the thirteenth century, the commencement of the first Tartar dynasty, a new plan was designed for the principal part of the capital, thence called the Tartar city. It has a parallelogramic form; and the four walls, which front the four cardinal points, include an area of about fourteen square miles, of which the palace, situated in the centre, comprises, within its yellow walls, at least one square mile. The whole is computed to be one third larger than London. The Chinese city, so named by way of distinction, contains about nine square miles; the major part of which is not occupied by buildings. Upon that part of it which is in cultivation is constructed the *sien-nong-tan*, or *eminence of venerable agriculturalists*, of which society the emperor is the head, and directs the plough, once a year, with his own hand.

The walls of the Chinese city, likewise, comprise two temples; the one called *Tien-tan*, or *eminence of heaven*, having the word *tien* or heaven inscribed upon its principal building; the other *tee-tan*, which is dedicated to the earth. The former is *round*, in allusion to the arch of the heavenly firmament, as it appears to the eye; the latter is *square*, in conformity to the idea of the Chinese, who believed this to be the figure of the earth. In the summer solstice, the sun's greatest heat, the emperor comes in awful procession to pay obedience, and return thanks for its

benign influence; and the like ceremony, in the winter solstice, is performed in the temple of the earth; but personification does not take place in either.

This religious worship of heaven and earth is confined to the person of the emperor; and for his accommodation it is performed at Pekin, where he annually appears abroad in several other magnificent processions, suggested from views of policy and religion. These ceremonies, which constitute the chief public spectacles in that city, have been compared to those religious ones of his holiness at Rome, under the name of *fonzioni*.

Riches, in China, confer but little importance, and no power; and property, without office, is not always secure. There is no hereditary dignity to give it weight and pre-eminence. The strong arm of power often falls more heavily upon the unprotected rich, than upon the miserable poor, who having nothing to lose are less objects of temptation. Excellence in learning alone constitutes greatness. There are but three classes of men in China: men of letters, from whom are chosen the mandarines; agriculturalists; and mechanics, including merchants. In Pekin, alone, such as, by public examination, are found to excel in the sciences of morality and government, as taught by the ancient Chinese, are exalted to the highest degree of literature, and elected, by the emperor, to all the civil offices of state, and to the great tribunals of the empire. Military rank is also conferred on such as, by competition, surpass in military tactics and warlike exercises.

The several branches of a family residing under one roof, and all dieting together, are enabled to live with greater economy; yet the poor are sometimes compelled, by necessity, to subsist on vegetable food only, the price of labour not being always proportionate to the price of provisions. Marriage, therefore, among the poor, is a measure of prudence, the sons being bound to support their parents; and as

the custom of early marriage is considered in the light of a religious duty, an union takes place whenever there is the least prospect of procuring future subsistence. In that view they are not always successful; in which case their helpless offspring are abandoned by the wretched authors of their existence. Superstition has lent her hand to sanction the horrid deed, rendering it a holy offering to the spirit of the adjoining river to throw an infant into it, previously attaching a gourd to its neck, to prevent it from immediate drowning.

In these cases the Chinese philosophers have left parental affection to the impulse of nature, which, to maintain its authority, requires the force of early precept. Children are more frequently deserted than parents neglected. To strengthen the tendency to filial obedience, the laws of the empire, by way of punishment, commit a man's offspring to his own will and power; and custom has rendered the notion familiar that life only becomes truly valuable, and inattention to it really criminal, after it has existed long enough to be endowed with reason and sentiment; but that a faint glimmering existence may be allowed to be lost without scruple, though it cannot without reluctance.

Female infants, considered as the less evil, are chiefly devoted to this cruel sacrifice, seeing that daughters become by marriage a part of that family into which they pass; whereas the sons maintain and console their own. Those infants are exposed soon after birth, ere the mind or features catch paternal affection. A few of them are snatched from the jaws of death by persons appointed by the government to watch the river, which provides for those taken up alive, and buries those who had already expired. The missionaries are also vigilant in this work of humanity; one of whom asserted, that upwards of two thousand were thus annually exposed, of whom a very small proportion only was saved. They provided for as

many as they could recover, and instructed them in the principles of the christian religion.

The embassador was waited on by a mandarine, high in rank, the evening before the embassy quitted Pekin, with a gracious message from the emperor to inquire after his health, which he had heard had lately been affected; advising him to travel by easy journeys into Tartary; and informing his excellency, that accommodations would be prepared for him and suite, at the same palaces where his imperial majesty stopped in his way to Zhe-hol.

## CHAP. X.

*Journey to the Northern Frontier of China. View of the great Wall. Visit to the Emperor's Court at his Summer Residence in Tartary.*

The embassador and most of his suite set out from Pekin for Zhe-hol on the 2d of September, 1793, accompanied by the usual number of Chinese. His excellency travelled in an English post-chaise, in which he occasionally accommodated some of the mandarines. At first they were under great apprehensions for its overturning; but their fears soon subsided, and gained it a decided preference over their clumsy carriages.

The land, as they passed, seemed to be highly cultivated; and its produce generally the same as on the other side of the city. One field, adjoining the road, attracted particular notice; as, from its regularity, it seemed to have been *planted* with a species of the polygonum.

The leaves being macerated and prepared like those of the indigo plant, imparted a dye of a blue colour, equal, or nearly so, to that produced from indigo. It was said, likewise, that a dye of a green colour,

was extracted from the buds and tender leaves of a small plant, of the species of the colutea; that carmine was seldom used, as their finest red was drawn from the carthamus; and that the cups of the acorn served them to dye a black colour.

Among the numerous tribe of indigenous plants, the Chinese have found out, by accident or research, succedanea for many articles in the economy of life, which, otherwise, they would have been obliged to obtain from foreign countries. In lieu of pepper, they substitute the seeds of a species of the fagara; and an oil, little inferior to the olive, is extracted from the kernels of the apricot. But oil, for more ordinary purposes, is drawn from the seeds of sesamum, of hemp, cotton, turnip, of a species of mint, and of several other vegetables. A species of cultivated momordica is found an excellent substitute for cucumbers; they combine shepherd's purse with their sallads; and a carduus, as a relish, with their rice. In rearing silk-worms, the leaves of the ash are often given for those of the mulberry. They manufacture a kind of cloth from the fibres of a dead nettle; and paper, from the straw of rice, from filaments of hemp, and the bark of various vegetables.

Early in the first day's journey, a river was crossed, which, though narrow, was navigable for boats. The course of this, and of the others in this tract, was to the south-east. Goods of various kinds are brought down these rivers from the borders of Tartary; and furs, the richest of its produce, as well as charcoal, the chief fuel for culinary purposes at Pekin, are conveyed thence upon the backs of dromedaries; animals which are fleeter and stronger than camels. Sheep were descried grazing upon the plains, having short, fleshy tails, weighing several pounds, in high estimation among Chinese epicures.

Having advanced about twenty miles in the country, the soil, in lieu of rich loam which they had seen, now put on a sandy and more barren appear-

ance. A few miles farther, the embassy reached the palace which completed their first day's tour. It was situated at the bottom of a gentle hill, encompassed with a park and pleasure grounds. In its neighbourhood were some mineral springs, said to be occasionally resorted to by the emperor, and thence called his baths.

During their progress on the second day, the travellers observed several plantations of tobacco upon the low grounds. This article in the West Indies is cured in extensive buildings; here, principally in the open air. It is hung upon cords to dry, under little apprehensions of its leaves being injured by rain. Smoking is not only very prevalent with both sexes here, but this custom extends even to girls of nine or ten years old. The smoke of the tobacco is inhaled through bamboo tubes. Its powder, too, is taken as snuff, as is likewise pulverised cinnabar; and opium and odoriferous gums are sometimes made use of for smoking.

In the course of the third day, the route led through a small town, walled round, but without cannon, yet there were troops stationed for the protection of the public granaries, some of whom were employed in repairing the roads. These, in many places, were so steep and rugged, that his excellency, whose carriage was forced to be dragged empty over them, was at intervals conveyed in a palanquin. At the bottom of some of these hills a river ran to the southward, over which there was a bridge, erected upon caissons of wattles, or hurdles, filled with stones. Bridges of this kind, constructed at a trifling expence, are the best calculated for resisting the torrents which, at times, rush suddenly and impetuously from the circumambient precipices. The caissons, occasionally of varied dimensions, are fixed by perpendicular spars, whose number and strength likewise vary according to the spread of the river, or rapidity of its current; and planks, hurdles, and

gravel are placed over the whole. But in broad and navigable streams the caisson work is interrupted, and large flat-bottomed boats placed in the vacuum.

Approaching the confines of Tartary, there was a perceptible assimilation of manners between the Chinese and Tartars, which at Pekin were strikingly opposite. The principal discrimination of the Tartar women consisted in the size of their feet. Both wore natural and artificial flowers in their head-dresses. This decoration is neither neglected by the poor nor abandoned by the old; and flowers are purposely cultivated for dress by persons who have no other occupation. Many of these gardeners, from attention and experience, have discovered methods of heightening the beauty, and increasing the fragrancy of the anemone, the peony, the matricaria, and many other flowers.

On the morning of the fourth day the travellers came in sight of what had been, and will continue to be, the wonder and admiration of ages, a work of stupendous magnitude, the great wall of China; said to extend in course fifteen hundred miles.

The road which led to the wall was by a steep ascent, which carried them to the southern gate, thrown across the road, where it passed over the summit of a range of hills, inaccessible almost in every part. Along this it ran through a narrow pass to a military post situated at its extremity. Here is, as well as at other posts, placed at certain distances, some men, generally unarmed, turned out as the embassy passed. A *loo* was beat by a man at the top of a tower, while another fired a salute of three cannon, placed vertically in the ground.

The embassy passing soon after through a gate, nearer to the Tartar boundary, arrived at Koo-pe-koo, where the strong garrison resides, destined for the defence of this part of the outer wall. Concentric works, united with the main wall, inclosed the fortress. At this northern border of China Proper,

Cooper sculp.

THE WALL OF CHINA.

the embassador received military honours. The troops were drawn up in two lines, facing inwards. A captain was at the head of each of the companies, with the standard, and five camp colours. Mandarines were on each side of the lane, formed by two lines; then music, tents, and trumpets; triumphal gates; on each side twelve companies in succession; and lastly, ten field-pieces. The companies were paraded each in the following order:

| | | |
|---|---|---|
| | The leader usually a bowman: | |
| | The standards: | |
| one sword; | five small colours; | one sword; |
| and | matchlocks and swordsmen | and |
| swordsmen; | in numbers nearly equal; | swordsmen; |
| five deep. | five deep. | five deep. |

The whole number amounted to about twelve hundred; and the space between the companies was about seven yards, nearly equal to the extent of their front.

The embassy had now passed the Chinese wall; when a Tartar, one of the attendants, being ordered to be punished by some of the Chinese mandarines, for misbehaviour, the man made a vigorous resistance, and exclaimed in a loud voice, that no Chinese had a right to inflict punishment on a Tartar after having passed the great wall.

An instance of claimed or affected superiority of Tartar chiefs over Chinese, of equal rank, occurred on his excellency's arrival at the next stage; where, receiving a complimentary visit from a Tartar military mandarine, Van-ta-zhin scarcely ventured to sit down in his presence.

On this side of the wall the season appeared to have undergone a sudden change. The air was much cooler; the mountains were either bare or thinly scattered with verdure; the pine-trees were stunted; the oak, aspin, elm, and walnut-trees diminished in size; and the woods, inhabited by wolves, bears, and tygers, little better than thorny shrubs. Hares, remarked for the length and spread of their feet and

toes, many of which had white furs, were not hunted by dogs, but driven into snares by men. The peasants of this part, like those about Swisserland and the Alps, are subject to a swelling in the glands of the neck, called by the French *Goitres*, supposed to be superinduced by the frequent use of snow water.

In the seventh or last day's journey, the ridges of the mountains, containing immense rocks of granite, ran nearly parallel to the road. Between the upper ridge and bottom of the valley was descried a perpendicular rock or antique ruin, two hundred feet high, of an irregular form, or rather, of that of an inverted pyramid; having tall shrubs growing upon its surface.

The cool temperature of the atmosphere is considerably increased by the relative elevation of this part of the country; it having been ascertained, that the ascent into Tartary is at least five thousand yards above the surface of the Yellow Sea. At a small distance from the towering rock just described, through a recess of mountains, the valley of Zhe-hol, the summer retreat of his imperial majesty, opened to view.

The embassy proceeding in due order to Zhe-hol, was received there with military honours, and conducted to a suite of edifices, connected to each other by steps of granite. They were spacious and convenient, commanding a view of the town and part of the emperor's park. The imperial garden, the palaces, and the temples, situated immediately beyond the town, exhibited a scene of grandeur and magnificence.

Soon after the embassador's arrival, he was visited by two mandarines of rank, with compliments from his imperial majesty; and by another mandarine on the part of the great colao or prime minister, Ho-choong-taung. The legate called the same day, and without offering the smallest apology, delivered back to his excellency *open*, the memorial respecting the ceremony of reception, which had been entrusted to

him *sealed*, under the promise of transmitting it to Ho-choong-taung. The legate insinuated he had kept the memorial in his own possession, though it was a known fact it had been forwarded to Zhe-hol, and its contents approved. This change of sentiment was supposed to have been effected at the instigation of the viceroy of Canton, recently arrived at Zhe-hol from Thibet, where he had commanded the Chinese troops. He was a declared enemy to the English, and represented them as restless, enterprising, and dangerous. The colao was induced to believe it desirable that the homage of vassals to the emperor should be performed by the embassador without any return of the independence of his own sovereign. Upon this ground, his excellency's memorial to the court was not to be avowed, and, of course, no answer returned: and a firm opinion was entertained that when the embassador should be introduced into the presence of the emperor he could not avoid making the accustomed prosternations without annexing any condition.

Before his excellency, then, should make his appearance at the palace, it became indispensably necessary to have an ecclaircissement of the business. The colao, indeed, had requested an immediate conference with the embassador, to learn the purport of his majesty's letter to the emperor. But, independent of indisposition, other motives would have induced him to decline the visit; and it was determined that the secretary of the embassy should be sent in his stead, with a copy of the king's letter, and the memorial returned by the legate. As by the etiquette of the Chinese court, no secretary can hold converse with the prime minister, nor even sit down in his presence, recourse was had to the commission of minister plenipotentiary, granted to the secretary, in case of absence or indisposition of the embassador; and in this character he waited on the colao. This vizier of China had been raised, twenty years since, from an obscure birth, and from

the humble station of one of the guards of the palace gates, to the dignified station which, under the emperor, delegated to him the whole power of the empire.

On entering the audience-room, the colao was observed sitting upon a platform covered with silk, between two Tartar and two Chinese mandarines of state. A chair was brought for the English minister, but the legate, and several other mandarines, and the interpreter, stood the whole time. The colao having formally demanded the object of the British embassy to China, he was referred to his majesty's letter to the emperor, a chinese copy of which was handed to him, and he seemed pleased with its purport. The embassador's memorial being laid before him, he affected to be ignorant of it, though he was prepared to make objections to the proposal it contained; which objections being answered in a manner that had been pointed out by his excellency, the conference ended in the wish, that the colao's reasons might be communicated to the embassador for his future consideration.

The next day, the legate and two other mandarines paid an official visit to the embassador, on the part of the colao, and pressed him to give up the point in question. They represented the prostration as a simple, unmeaning ceremony, when done towards the emperor; but a similar one towards his Britannic majesty as of the most serious import; and as hints of personal inconvenience were thrown out, in default of unconditional compliance, his excellency took that opportunity of declaring, how much his sense of duty to his sovereign exceeded his sense of danger; that there must either be a reciprocity of ceremony, or that some striking characteristic should be established whereby to distinguish between a *compliment* paid on the part of a great independent sovereign, and the *homage* performed by tributary princes: especially as already it had been endeavoured to confound them by giving the name of *tribute* to

the British presents, as appeared by the inscriptions placed upon them by the Chinese. Not being, perhaps, aware that this circumstance was known to the embassador, they were forced to admit the propriety of the proposal; and they asked, how far consistent with his duty, and in what manner, different from that of the vassals, he could testify his personal respect to his imperial maj sty? His excellency replied, that on approaching his own sovereign, to whom he was bound by every bond of allegiance and attachment, he bent upon one knee; and that he was willing to comply with the same form, to demonstrate his respectful sentiments towards his imperial majesty.

This proposition seemed perfectly satisfactory to the Mandarines, who promised to return soon with the court's determination. In the interim, it became a matter of surprise at Zhe-hol, how a few solitary strangers, at the mercy of a fôreign court, should have the presumption to offer to it conditions; or the intrepidity to refuse to it obedience. They were to be sent back without audience; and no attention paid to their complaints. It was at that moment, however, necessary to complain of the paucity of provisions, which neglect was instantly redressed, and supplies in future abundantly furnished.

The town of Zhe-hol is small; the dwellings miserable, and crammed with people. The streets were unpaved, and mostly crooked. The best houses belonged to the mandarines. The valley of Zhe-hol, which winds between hills, has a rich fertile soil, but its culture is neglected. It is watered by a stream running through it, in the sands of which were found particles of gold. The circumjacent hills appeared to have been once well planted with trees; but those few which remained were stunted; and timber was become very scarce. No young plantations had been made to supply the old ones cut down. The garden of every peasant contained a well for watering it;

and the buckets for drawing up the water were made of ozier twigs, wattled or platted with so close a texture, as to hold any fluid. Garlic, and other acrid and aromatic vegetables were seen in abundance in every garden, as they serve as a relish to the rice and millet, the principal subsistence of the peasantry.

Intimation was given to the embassador, that his imperial majesty would be pleased to accept of the same form of respectful obedience from the English, which they were accustomed to pay to their sovereign. It was also notified, in form, that the reception of the embassy by the emperor would take place on the 14th of September, three days prior to his birth-day. In the interim, very flattering messages were conveyed to his excellency, expressive of the great satisfaction which the presents gave to his imperial majesty.

In a private visit which the embassador afterwards made to the colao, he was received with unreservedness and affability, and with proper attention to his rank and character. In the course of conversation, his excellency was desirous of impressing the colao with a full conviction of the ingenuousness of the past conduct, and the purity of the future intentions of his majesty towards China. He persisted in the pacific and beneficent maxims of his government, whose chief object was the extension of commerce for universal benefit; and he slightly touched, as incidental matter, on the affairs of the tributary princes; on the dissolution of the Mogul empire of Hindostan, in whose contests, though they claimed protection of the neighbouring countries, the English did not interfere. The colao, however, afforded not the least opening for a particular disavowal of having lent assistance to the Rajah of Napaul against the people of Thibet.

His excellency being no stranger to the haughty notions entertained by the Chinese of their being independent in point of commerce, and that every such transaction with foreigners was by them considered

as a boon of courtesy, was far from insinuating that they could be advantaged in a mutual interchange of commodities; in the supply of cotton or rice from India; of bullion; or, lastly, by the aid of a naval force to exterminate the swarm of pirates from their coasts. The embassador was not averse to their considering a commercial intercourse as a condescension on their part, and offered to treat on those terms. The colao observed hereupon, that they should have frequent opportunities of conversing together during his excellency's abode in China.

Ho-choong-taung, besides being a finished statesman, was of refined manners, and of deep penetration. The favour of his sovereign called him to his high office and power, and the approving voice of persons of rank and influence maintained him in it. He was rendered still more secure in its possession by a matrimonial tie, his son being married to a daughter of the emperor; for princes, in Asiatic governments, often intermarry with their subjects. This connection, however, alarmed some of the imperial family, and other loyal subjects, who saw no bounds to this favourite's ambition, inasmuch as the established principles of that government leave the succession to the choice of the reigning prince, who, in lieu of its descending by primogeniture, may exclude, as has already been instanced, even his own offspring and family. A man, over zealous, was punished capitally, by the present emperor, for daring, in a memorial, to advise his imperial majesty to proclaim his successor, to avoid future dissentions.

The Emperor was accompanied by most of his family on the day of the embassador's presentation, the scene of which was in the garden of the palace of Zhe-hol. The emperor's magnificent tent was placed in the middle of the garden, and within it was a throne. Immediately behind this tent was another, of an oblong form, having a sopha in it at one extremity, for the emperor to retire to occasionally. In the front

were several small round tents; one for the accommodation of the embassy till his imperial majesty should arrive, the others for that of the tributary princes of Tartary, and delegates from other tributary states, who came to Zhe-hol to be present at the celebration of the birth-day, but who attended now to dignify the embassador's reception. The representative of the king of Great Britain was to be received by his imperial majesty, in his large state tent, seated upon his throne.

As a compliment to the British embassy, the emperor permitted his courtiers to appear dressed in English cloth in lieu of silk and furs. The princes wore the transparent red button, marking the highest of the nine orders, as fixed by the present emperor. No person appeared who was inferior to the second rank in the state, the characteristic of which is, the opaque red button. There are three classes of another kind of dignity, which consist of peacock's feathers fixed in agate tubes, worn pendant from the bonnet; and he who had been honoured with three feathers, doubtless thought himself thrice happy. In compliance with the etiquette of the court, which is to be a long time in waiting, the embassy assembled before peep of day; but many of the courtiers had remained all night in the garden.

The emperor's approach was notified, soon after day-light, by instruments of music. His imperial majesty was preceded by persons loudly proclaiming his virtues and his power. He was borne by sixteen men in a triumphal car, followed by his guards, officers of the household, standard and umbrella bearers, and a band of music. He wore a plain, dark silk, with a velvet bonnet, having a large pearl in the front, the only jewel he had about him.

His imperial majesty entered the tent, and ascending a few steps, consecrated only to his use, seated himself upon the throne. The colao, and two officers of his household were next him, and knelt whenever they

addressed him. The princes of the family, the tributary princes, and officers of state, having gained their respective stations in the tent, the president of the tribunal of rites conducted the embassador, attended by his page and interpreter, the minister plenipotentiary being also present, near the foot of the throne, on the left-hand side, the place of honour. The other gentlemen of the embassy, many mandarines and officers of various ranks, were at the great opening of the tent, where every thing that passed could be observed.

His excellency appeared in a suit of velvet richly embroidered, decorated with a diamond badge and star, the order of the bath, and over this, a long mantle of the same order. The minister plenipotentiary, being an honorary doctor of laws, of the university of Oxford, was habited in the scarlet gown of that degree. The embassador, pursuant to instructions received from the president of the ceremonies, held the large, magnificent, square gold box, embellished with jewels, containing his majesty's letter to the emperor, between both hands raised above his head, then mounting the steps which led to the throne, and bending upon one knee, presented the box with a suitable laconic address to his imperial majesty, who receiving it graciously with his own hands, put it by his side, and represented "the satisfaction he felt at the testimony which his Britannic majesty gave to him of his esteem and good will, in sending him an embassy, with a letter and rare presents; that he, on his part, entertained sentiments of the same kind towards the sovereign of Great Britain, and hoped that harmony would always be maintained among their respective subjects."

The dignified and splendid manner in which the embassy was received, influenced the minds of the Chinese, and induced them to believe that government was about to make a change of measures favourable to the English. Embassadors were not usually

received by the emperor upon his throne; nor were their credentials delivered into his hands, but ordinarily into those of his ministers.

The first present which the emperor made to his majesty was a jewel or precious stone, more that twelve inches long, highly valued by the Chinese. It was carved into the similitude of a Chinese sceptre, in the form of that which is always placed upon the imperial throne, allusive of peace and plenty. The embassador, in compliance with the Chinese etiquette, and also the minister plenipotentiary, respectfully offered presents, in their turn, on their own behalf; which his imperial majesty vouchsafed to receive, and gave others in return.

Adverting to the inconveniency of having recourse to an interpreter to explain whatever passed during the interview, his imperial majesty asked the colao, if there were any persons in the embassy acquainted with the Chinese language; and being told that the embassador's page, Master George Staunton, a youth then in his thirteenth year, was the only one who had made any proficiency in it, the emperor desired he might be brought up to him; and he asked him to speak Chinese. His imperial majesty was so charmed with the converse and elegant manners of this accomplished young gentleman, that he took from his girdle his areca-nut purse, which hung to it, and presented it to him with his own hand. It was of plain yellow silk, and had the figure of the five-clawed dragon, and some Tartar characters wrought upon it. Purses, it seems, are the ribbons of the Chinese monarch, which he bestows as rewards of merit; but the emperor's own purse was a token of personal favour, valued by the Chinese above all other gifts.

At the conclusion of these ceremonies, were brought up to the emperor, at the right hand of the throne, several Hindoo embassadors from Pegu, and Mahometans from the vicinity of the Caspian, who, when they had repeated nine solemn prostrations,

were speedily dismissed. After this, the English embassador, and the three persons accompanying him, were conducted to the left hand of his imperial majesty, and seated upon cushions. The princes of the imperial family, the chief Tartar tributaries, and the highest officers of court were seated according to rank, nearer to or more remote from the throne, before which was placed a table for his imperial majesty; and one table was likewise laid for every two guests. When all were seated, the tables were uncovered, and displayed a splendid banquet. Various kinds of viands and different sorts of fruit were served up in bowls, piled pyramidically one above another. Tea was also introduced. During the repast, every bowl or cup handed to the emperor was taken with hands raised above the head, as had been done by the embassador when he presented the gold box. Much silence and great solemnity, verging on religious awe, were observed during the whole of this business.

His imperial majesty's attention to his European guests was remarkably conspicuous. By his order several dishes were handed to them from his own table, and when the repast was finished, he sent for them, and gave them, with his own hand, a goblet of warm Chinese wine. Inquiring of the embassador how old his own sovereign was, he cordially wished, in answer, that he might attain his years, which then amounted to eighty-three, in a perfect enjoyment of health. The festival concluded, he descended the throne, and walked firm and erect to the open chair which was in waiting.

A short time after the embassador returned, he received, from his imperial majesty, presents of silk, porcelain, and tea for himself and all the gentlemen of his suite. Some rare white grapes, more oblong in form than the Spanish olives, and about their size, were mixed with the occasional presents of fruit.—At or after the customary visits, between superiors and inferiors, an interchange of presents takes place;

but those from the former are bestowed as *donations*, while the latter are received as *offerings*: these being the Chinese terms for such presents as pass between the emperor and foreign princes.

Among the many instances of civility on the part of the emperor was an invitation to the embassador and suite to visit the garden and pleasure-grounds of Zhe-hol. This, like many other transactions at the imperial court, began early in the morning. In going thither they met the emperor, who, after being greeted by the embassador, informed him, he was proceeding to his devotions in the temple of Poo-ta-la; that as they did not worship the same gods, he should forbear to solicit his excellency to join him; but that he had given directions to his ministers to accompany him through the gardens.

His excellency was not less surprised than pleased to find that Ho-choong-taung, the prime minister, had been ordered for this purpose, in the hope of it affording a favourable opportunity of contracting an intimacy, and resuming the topic which was the chief object of his mission. But this pleasurable idea was soon repressed by the appearance of the Thibet general, who joined the colao, as if he dreaded the embassador's gaining any ascendancy over him, or that any explanation might take place between them relative to the Thibet war; and left no opportunity of entering on either subjects. The general's brother, and another chieftain of rank, were also present.

His excellency and suite were conducted by them through a vast enclosure of pleasure-grounds, forming a portion only of the extensive gardens; the remainder, appropriated for the use of the female part of the imperial family, was inaccessible to these ministers as well as to the English. Riding through a verdant valley, in which were willows whose trunks were of vast magnitude, they arrived at a lake, upon which they sailed in yachts till they could proceed no farther for a bridge. The spreading leaves and fra-

Cooper sculp.

A VIEW OF POO-TA-LA, OR GREAT TEMPLE, NEAR ZHE-HAL, IN TARTARY.

grant flowers of the *lien-wha*, a species of the lily, covered the surface of the water.

Near the borders of the lake were several small palaces. In each was a public hall, having a throne in the middle, and a few side rooms chiefly furnished with European works of art, and rare natural productions of Tartary. Upon a marble pedestal, placed in one of the pavilions upon the lake, was an agate of unique beauty and size; this agate, which by art is made to represent a landscape, is four feet long, upon which is cut a copy of verses composed by his imperial majesty.

Various kinds of quadrupeds and birds were discovered in the gardens, but no menagerie of wild beasts. There were also some monstrous varieties of gold and silver fishes sporting in ponds of clear water, whose beds were covered with agate, jasper, and other precious stones. The walks were not covered with gravel, nor were the grounds enriched by belts of trees, nor clumps of shrubs: art had lent but little assistance to nature in the distribution of its objects.

One of the curiosities, reported to be in the garden of Zhe-hol, was inadmissible to the party, *the town in miniature;* being inclosed within those limits set apart for the ladies of the palace. It is said, by a missionary, to be an exact representation of the transactions of common life; as well as the bustle and confusion of the capital. The same missionary, in quality of artist, had been engaged in the embellishment of a similar work, in the ladies' garden at Yuen-min-yuen. Something of this kind is now in one of the imperial palaces of Petersburg.

The general deportment of the colao, during the excursion through the gardens, was that of an experienced courtier; his politeness and attention to the embassador were unremitting: the other minister was affable and courteous; but the manners of his brother, the general, were formal and ungracious; nor was it in the power of the embassador, by flattering his talents

as a warrior, to dissipate his ill humour. The prime minister in the course of conversation, mentioning the arrival of the Lion and Hindostan at Chu-san, his excellency seized that opportunity of requesting that captain Mackintosh might now be permitted to join his ship, having paid his obeisance to the emperor: but the Thibet general, who kept close to the colao, immediately interposed, and exclaimed, it was highly impolitic to suffer him to traverse the Chinese dominions. Nothing decisive was determined on for the present; but the embassador pressed the colao to giv him an opportunity hereafter of renewing the subject.

Ho-choong-taung, from the multiplicity of state business, and the great fatigue of that day's exercise, was taken ill, and he sent to request the embassador would allow his English physician to visit him. Dr. Gillan followed the messenger to the colao's house, where some of the faculty were assembled. Tea, fruit, and sweetmeats, followed the first ceremonies of introduction; when these were removed, the patient presented first his right arm, then his left; and the doctor, to comply, in some degree, with the prejudices of the country, and that he might give no offence either to the patient or his physicians, very gravely felt the pulse of both arms, and for some continuance. He told them, however, that Europeans did not deem it at all necessary to feel the pulse in different parts, as they well knew that the pulsation was simultaneous in every part of the body; which doctrine being new, and as amazing to the physicians as to the colao himself, he applied the fore finger of the colao's right hand to the left temporal artery, and the same finger of his left hand to the right ankle, when to his utter astonishment, he found the pulse beat at the same instant of time at each part.—By the answers to the questions which Dr. Gillan put to him, he found two distinct complaints, Rheumatism, and Hernia. The doctor's explanation of the nature of the disorders, and proposed method of cure, were put down in writing; the colao was perfectly

satisfied with the doctor's ideas, and made him a present of a piece of silk.

As no interview could be obtained with the colao for some time, notwithstanding he was soon eased of his rheumatic pains, the embassador determined to write to him on the subject of Captain Mackintosh, to request his speedy departure to rejoin his ship at Chu-san; and as no Chinese could be found hardy enough to carry a letter without leave from the legate, (who, by the by, had been degraded by the emperor for not going on board the Lion with the two Mandarines Van-ta-zhin and Chow-ta-zhin, and now wore in his bonnet the opaque white, instead of the transparent blue button, and, pendent from his cap, a crow's tail feather instead of a peacock's, though he still retained his authority and offices, being protected by Ho-choong-taung) the interpreter to the embassy, not without great risk, and much personal insult from the rabble on the road, undertook the business, and put the letter in a proper channel for its speedy delivery.

The embassador and his suite were called before sun-rise, on the morning of the seventeenth of September, to be present at the celebration of his Imperial majesty's anniversary: a festival which lasted many days, though the feast was expressly devoted for rendering solemn and devout homage to the supreme majesty of the emperor. The ceremonial passed in a vast hall, in which were assembled the princes, tributaries, embassadors, great officers of state, and principal mandarines. To the sound of cylindric bells, suspended in a line from ornamented frames of wood, and gradually diminishing in size: and also to that of triangular pieces of metal, placed in the same order as the bells, as well as to the music of various other instruments, a slow and solemn hymn was sung by eunuchs. During the chaunting of this encomiastic song, which, accompanied by the music, produced a grand effect, at particular signals, nine times repeated, every person present prostrated himself nine times

except the embassador and his suite, who made only one profound obeisance. He to whom this awful act of adoration was made, in imitation of the deity, kept himself the whole time invisible.

The influence intended to be wrought upon the minds of men by this devout veneration of a human being, was not to be effaced by an immediate succession of sport or merriment: scenes of this kind were deferred till the morrow. In the mean time the embassador, accompanied by Sun-ta-zhin, a Tartar chief, lately promoted to the rank of colao, visited, among other places, the grand temple of Poo-ta-la, comprising one vast, and several small fabrics: the principal was a grand cathedral of a square form, each of whose sides was two hundred feet. It contained eleven rows of windows, one above another, having as many ranges of apartments. The front was plain and uniform, but well finished. The apartments of the quadrangle were united together by a spacious corridor below, and an open gallery above. A space railed off in the middle of the chapel, raised above the floor, presented three altars superbly decorated, and three colossean statues of Fo, his wife, and child; and in an obscure recess, at the back of these altars, was the sacred tabernacle, with a single glimmering light, as if intended to impress the mind with religious horror. No less than eight hundred lamas or priests were attached to this temple, some of them from their infancy; but all officiated in the exterior ceremonies of religion, which greatly contributed to its magnificence. This expensive devotion of the emperor towards Fo, was supposed to have arisen from this circumstance; that in contemplating his long and felicitous reign, he had wrought himself up to the belief, that his favourite deity had condescended to become incarnate in his person.

The next day, upon the lawn before the emperor's great tent, were exhibited a variety of entertainments: and his imperial majesty, surrounded by his court, graced them with his presence. The specta-

ces were entirely Chinese; and every person who excelled in any particular talent, whether for strength, dexterity, or in the performance of any extraordinary feat of agility, were assembled on the occasion, in the presence of innumerable spectators. Some were famous in the art of balancing; others at legerdemain, tumbling, wrestling, dancing, and various other exercises. There was also some vocal, and a great variety of instrumental music. After the musicians, were performed fancied ballets, by many hundred persons, habited in tunics; in which such Chinese characters were represented as, discovered by the aid of lights in translucent lanterns of various colours, reflected much commendation on his imperial majesty.

Next to the ballets, various kinds of fire-works were launched off, which displayed great skill in the pyrotechnic art. Several of the conceits were new to the English spectators, among which was the following. A large box being sent up high in the air, its bottom seemed accidentally to drop out, from which aperture issued a vast number of papers, wrapped up in a flat form: These papers unfolded themselves from each other by degrees, and were transformed into regular lanterns, in each of which a burning light was suddenly perceived, whose flame was vivid and beautifully coloured; effected without any communication from without which could produce the flame that was within.—But what was most extraordinary, this devolution and developement were reiterated, with a change of figure every time, as well as a change of colours. Smaller correspondent boxes were affixed to each side of the large one, which unclosed in the same way, and exposed to view a kind of net work of fire, with partitions of various forms that glittered like burnished copper, and, with every gust of wind, produced coruscant flashes resembling lightning. The whole concluded with a volcanic eruption of artificial fire, in the grandest stile imaginable.

A select party was invited to a pantomimic entertainment in the theatre belonging to the ladies of the palace; a small handsome building, three stories high, situated between their pleasure grounds and the emperor's garden. It contained three open stages, one above another. The guests, among which were the embassador and a part of his suite, sat in deep boxes, opposite the lowest stage: over them were the ladies, in latticed galleries, who could see what was doing upon any of the stages, though they were invisible to all. It appeared that the emperor was willing to gratify their curiosity with a sight of one belonging to the embassy, the page being conducted out of the embassador's box, by a eunuch, upon a platform within view of the ladies.

The actors, who were numerous, and filled the three stages, instead of appearing in the human shape, assumed the likeness not only of animals, but likewise of a variety of inanimate productions of sea and land; intended, perhaps, to represent an epitome of the world. The pantomime was divided into several acts, and lasted a considerable part of the afternoon. During the performance, the emperor called the embassador to him, and said, "It was only on particular occasions, like the present, that he assisted at such spectacles; the care of watching over the safety of his people, and enacting laws for their welfare, necessarily demanded every moment of his time."

Notwithstanding this unremitting attention to the public weal, his imperial majesty had found leisure to cultivate some of the polite arts. He had written poems, something like the epics of Voltaire, which shewed taste and fancy. A few stanzas were consigned to the embassador for his majesty, as were some rare gems, highly prized from having been eight centuries in the family; and they were presented as a pledge of perpetual friendship.

It had been the custom of the emperor after the celebration of his birthday to follow the great

chase of wild beasts in the forests of Tartary; but this sport was now declined on account of his advanced age. He generally passed the summer in his Tartar, and the winter in his Chinese territories; and as his imperial majesty had resolved on a speedy return to Pekin, it was settled that the embassador should leave Zhe-hol before him. The latitude of this place was ascertained to be forty-one degrees fifty-eight minutes north.

Previous to his excellency's departure for Pekin, he received an answer from the colao to his letter, signifying, that the Hindostan should be allowed to sell goods and purchase a cargo at Chu-san under the protection of the mandarines, who should take care that the natives did not exact: and that, as she had come from Europe chiefly laden with presents for the emperor, no duties should be taken on her return; but that Captain Mackintosh could not be allowed to join his ship. This disappointment was doubtless owing to the illiberality and unfriendliness of the Thibet general.

## CHAP. XI.

*Return to Pekin. Observations and Occurrences there, and at Yuen-min-yuen. Departure from Pekin. Journey to Han-choo-foo, partly upon the Imperial Canal.*

The embassador, his suite, guards, and train of domestics, quitted Zhe-hol on the morning of the twenty-first of September; and halting, in the evening, at one of the emperor's palaces, one of the guards died there. This event was kept secret, it being contrary to rule to suffer any one to expire within the imperial precincts. The next morning his body was conveyed, as if alive, in a palanquin, and at a few miles distance, his death was formally announced.

The embassy arrived at Pekin on the evening of the twenty-sixth of September, to the inexpressible joy of such of their fellow travellers as had necessarily been left behind there, who had remained ever since immured up in a state little better than actual captivity. Some of the missionaries, in the first days, had paid them occasional visits: but this friendly intercourse arousing the jealousy of the Chinese, they were ordered to be discontinued, and the conduct of both, in future, narrowly watched.—The embassador's entrance, however, into the city, was marked with the usual honours, and he received the accustomed visits of the mandarines.

His excellency being, among other circumstances, aware that a system of precaution originating in jealousy had been constantly adopted with regard to the embassy, foresaw the expediency of fixing some future day for his departure, and he had understood that such a proposal was expected. No permanent residence had ever yet been established in China for any foreign minister; and the government of the country considering embassadors as guests, whose charges were defrayed out of the public purse, the unbounded hospitality and sumptuous treatment already afforded to the English, were powerful arguments against the prolongation of the visit: the embassador, therefore, resolved to ask leave to depart in the beginning of February, before which time he might hope to effect something towards the establishment of a more frequent and friendly commercial intercourse.

Exterior ceremonies performed in honour of the emperor, which tend greatly to inspire the people with sentiments of respect and duty towards him, are practised generally throughout the empire. On his imperial majesty's birth-day, all the mandarines at Pekin, dressed in their ceremonial robes, assembled together at noon, in the great palace of that city, and each, before the throne, upon which incense was burning, prostrated himself nine times, and made of-

ferings of viands and liquors, as if he could partake of them though absent. In the same general manner is incense burned, and offerings made, every new and full moon, before the throne of the several palaces, by all the officers of the emperor's household.

The temples of Pekin have no claim to elegance when compared with its palaces. The religion of the emperor is performed with much magnificence in Tartary, but in China it is new. The mandarines and men of letters venerate Confucius, and assemble in halls of simple construction; and the lower classes of the people are unable to contribute to the erection of splendid edifices for public worship. Besides, their religious attention is much taken up with their household gods. Every house has its altar and its deities. Their mythological books contain similitudes of those whom they imagine preside over their persons and properties, as well as over external objects likely to affect them.

The lion is neither bred in that country, nor has any one ever been transported thither, either as a public spectacle for profit, or as a present to the emperor. Those statues must therefore have been bad imitations from incorrect drawings of the lion, whose superior strength and imputed generosity have gained him notice and intimacy beyond the extent of his travels.

That huge animal the elephant, remarkable for its strength and docility, was seen about the palaces of the emperor. Several, both male and female, have been brought to China from the vicinity of the equator, and some few of them were bred to the northward of the tropic. They are of a lighter hue, and smaller than those at Cochin-china. The elephant is the only quadruped that has a proboscis, though instances of it are frequent in the insect tribe.

To qualify persons as officers of the household, and other departments in the imperial palaces, it is necessary to become eunuchs; and the operation for

this is generally performed before the age of puberty, though it is done from childhood to forty years of age. Such as are desirous of quitting plebeity, and willing to become eunuchs, are immediately received into one of the palaces, and invested with an employment that gains him the advantages and importance of a gentleman; and some few of them have been dignified with a ball upon their cap, the badge of office of both civil and military mandarines.

But simple castration is not sufficient for those who are entrusted with the care of the ladies of the court. They undergo entire emasculation, all traces of sex suffering complete excision. The beard of an adult, thus formed into a *black* or *complete* eunuch, soon begins to fall off, and in a short time the whole disappears. His frame also withers like a blighted plant, and his face, like the wrinkled hag, is full of furrows. From menial servants at the commencement, by degrees they creep gradually into favour and power, administering to the potentate's private pleasures and amusement; and their influence has been able, from a supposed indignity, to effect the dismissal and disgrace of mandarines of eminence: the missionaries who, from their principles of converting to their faith, stand on a precarious footing, are more afraid of giving offence to an eunuch than to a mandarine; and knowing they have the ear of the emperor, they endeavour, by meekness of behaviour, and acts of civility, to conciliate their good wishes.

When an emperor dies, all his women are removed to an edifice called the *Palace of Chastity*, situated within the walls of the palace; in which they are shut up for the remainder of their lives.

There are in China a few Pagan nuns, who make a vow to remain virgins: though the laws of the country do not admit of religious convents, these women are admired for persevering in an effort which is difficult to accomplish. The adultery of women is punished, but not capitally.

When a new emperor accedes to the throne, it is said that very respectable persons of the country take their daughters to the palace for his choice; and the families of such as are accepted think themselves highly honoured. Others are presented to the princes of the blood either for wives or concubines. The latter, in China, are looked upon in the same light as handmaids in the old testament. In the lower classes of life, however, beauty must be very rare, if what has been asserted be true: that young girls of good figure, with handsome features, and delicate complexions, are taken or purchased from their parents at the age of fourteen, for the use of the rich and powerful.

Intimation was given to the embassador of the emperor's approach to Yuen-min-yuen, and that the etiquette of the court required he should go some miles on the road to meet him; though much indisposed with rheumatism, his excellency went early in the morning to the rendezvous pointed out: the emperor came with regal pomp and dignity; and perceiving the embassador stopped to deliver a gracious message of civility, which ended in desiring him to return speedily, as the dampness of the morning might increase his complaint.

The embassador was informed by some of the great mandarines, friends to the embassy, that a council had been holden to take into consideration the letter brought by him from the king of Great Britain, and the proper mode to be used towards his subjects. On this occasion the prime minister had summoned the Thibet general, viceroy of Canton, and a former hoppo of the same place, a declared enemy of the English, then a state prisoner, convicted of embezzling the public treasure to an immense amount, and of exactions from the English while at Canton, to give their testimony and advice as being competent to judge of the conduct and disposition of the foreigners trading to that port; but, without doubt, to

strengthen the colao against the more favourable inclinations of his imperial majesty. Nothing auspicious could be expected from the suggestions of such persons; and the embassador notified his desire to the prime minister, to leave Pekin early in the month of February.

The embassador, instead of an answer to this message, received an invitation to come to Yuen-min-yuen, where he had English letters to deliver to him. His excellency went thither, and found a few letters, dated Chu-san, from the Lion and Hindostan; the colao wished to know their contents; he was told, the Lion would soon put to sea, but that the Hindostan would wait for her commander; and his excellency put the letters into his hands.—The colao hoped the ship would wait to carry back the embassy. He observed, that the emperor, on hearing of the embassador's illness and the death of some of his suite, and apprehensive that they might materially suffer in their healths by a continuance, imagined it might be desirable to depart before the rivers were frozen up, as travelling by land was very inconvenient: the embassador discovered that other motives were concealed under the pretended solicitude for the embassy's health, and made a proper answer; which was replied to by the prime minister as before; and his excellency was suffered to take leave without being informed that the emperor's answer to his majesty's letter was ready, and would be delivered the next day.

The legate having waited on the embassador to say the colao desired to see him speedily at the great hall of audience in the palace of Pekin, he went thither; in the midst of which was placed, upon a chair of state, the emperor's answer. It was comprised in a large roll, covered with yellow silk, and was to be sent that evening, in form, to the embassador's hotel. Whatever favour it might contain, could not be attributed either to the colao,

or his companions, whose unfriendliness was demonstrated by their pertinacity in refusing the presents usual from foreign ministers. In a conversation, however, with the minister on the points desirable to be procured for the English East India company in China, he asked for a brief abstract; and without pledging himself to support them, promised they should have an immediate consideration. His excellency, in consequence, lost no time in forwarding such a statement.

The emperor's answer, which was sent the same evening, was accompanied with several chests of presents for his majesty; some for the embassador and his suite; and even tokens of his beneficence were extended to the officers and men of the ships of the embassy, as well as to the most menial servant present.

As no positive directions had been given for his excellency's departure, it was inferred, from the emperor's last declaration at Yuen-min-yuen, that recourse would not be had to *absolute command*. His excellency had to regret the little progress made as to the purport of his mission; though he saw the inutility of a wish to prolong his residence against the colao's inclination. He had, beside, been privately informed, that the Chinese had no other idea of an embassy than that of a visit with presents on some solemn festival, and to last only during its continuance.

At this juncture, one of the Neapolitan Chinese, who had quitted the Lion near Macao, brought the embassador letters from one of the East India company's commissioners at Canton, stating the expectation of an immediate rupture with the republicans of France and Brabant. Under all these circumstances, and having an eye to the safety of the British ships homeward bound the ensuing season from Canton, his excellency signified to Ho-choong-taung his intention of joining Sir Erasmus Gower, at Chu-san, with

all possible speed; and requested a letter from him might be immediately forwarded containing such information.

This determination, which was pleasing to the colao, was perfectly consistent with Chinese decorum, which demanded a total cessation of the embassy after the receipt of the emperor's answer, and the *farewell* presents; neither could any personal communication afterwards be obtained with his imperial majesty. An intercourse more favourable to the views of the embassador unexpectedly took place on the route to Chu-san, through the means of one of the six grand colaos appointed to accompany the embassy thither.

The sudden removal from Pekin threw the embassy into great confusion, from the short time allowed to prepare for it; but it was forced to yield to imperious necessity. The route was directed through Han-choo-foo; and besides its two old and respectable companions, Chow-ta-zhin, and Van-ta-zhin, another person of the first rank, Sun-ta-zhin, one of the grand colaos, who was in the confidence of the court, was appointed to accompany the strangers, and to watch and report their conduct.

On the morning of the 7th of October, Ho-choong-taung, and other ministers, came to a pavilion within the gates of Pekin, to take leave of the embassador, and delivered some gracious messages on the part of his imperial majesty. They hoped the treatment his excellency had met with was consonant to his wishes; and at the same time assured, that due attention should be paid to him and his suite, in order to render the journey pleasant to the port of embarkation. Upon a table were placed two tubes of bamboo wood, covered with yellow cloth, containing two rolls of yellow paper. Upon one was written an enumeration of the imperial presents, and upon the other, an answer to the recent requisitions made by the embassador respecting the English factory at Canton. A

mandarine of the fifth order was appointed to carry them as far as the river upon which his excellency was to embark.

His excellency, with his English and Chinese retinue, set out immediately for Tong-choo-foo, in order to embark upon the Pei-ho; and passing through one of the eastern gates of Pekin, he was honoured with the usual salutes.

On the return from Pekin, a gentleman of the embassy went into an open temple on one side of the causeway, where he descried a curious figure, which he imagined was meant to represent the *lingam* of the Hindoos, or heathen god of gardens. It was, however, nothing but a short column, resting upon the back of an animal, of the lizard kind, but of rude sculpture. It is probable the column was intended as a monument for Chinese inscriptions, with which one face was nearly filled.

The embassy was received in a respectful manner at Tong-choo-foo. The temple, its former residence, was prepared for its accommodation, and in the evening the city was illuminated. Before the deities in this temple, which have already been described, were placed one or more bronze vessels for burning perfumed matches and tinfoil paper.

The next day, the yachts being ready, and the presents all shipped, the embassy embarked upon the Pei-ho, whose waters were decreasing so fast that, the second day, the boats were forced to be dragged along. Very little progress had been made when the colao, Sun-ta-zhin, came to inform the embassador, (whom he received with every mark of respect, and to whom his excellency reiterated his acknowledgments for the civility shewn him at Poo-ta-la, and in the gardens of Zhe-hol) that he had just received a letter from the emperor; an extract of it, which he read, purported that "he (Sun-ta-zhin) should take the embassy under his particular care, that every proper distinction should be shewn, and attention paid to

the embassador and his suite in their route to Chusan, and that he should see them safely embarked on board their ships; but that if those ships should be sailed from thence, to proceed in the same manner, and for the like purpose, to Canton."

Sun-ta-zhin, besides being a colao, was honoured with the yellow mantle, worn over his other garments —the highest distinction known in China. He was elegant in manners, but tenacious of his rank and dignity. Without disclosing his private instructions, conveyed, probably, in the same dispatch, he gave the embassador to understand, that his letter to Sir Erasmus Gower had not been forwarded; having been kept back through the suspicions of Ho-choong-taung. Sun-ta-zhin, however, was soon convinced by the candid explanation which the embassador gave him of that letter, of the necessity of sending it; and he wrote concerning it to his imperial majesty. He held frequent communications with the embassador; and his inquiries were less stimulated by personal curiosity, than by the desire of conveying to the emperor the best information he could collect, respecting the English and other Europeans trading to China; so that his excellency discovered that, though he was receding from the court, he was advancing more the object of his mission, through the medium of the present liberal conductor of the embassy, than when he was really present, by removing the prejudices which the Chinese, under false representations, had imbibed against the English character.

The gentlemen of the embassy were not, as before, restrained from little excursions upon the shore. In this part, the fields were parched up by long drought; and the following is the method taken for watering them. Two men stood upon projecting banks, opposite to each other; each held in his hand a rope fastened to a bucket, which when filled with water from the river, after swinging it to and fro several times, was thrown with rapidity into a reservoir,

made near the river's bank; and from this, by means of small channels, the water was conveyed over the adjoining fields. At other times, a long pole, whose length was unequally divided, is made to turn upon a pivot across an upright post. A bucket fixed to the shortest end is lowered into the river, which when filled is hoisted by the longest lever, and its contents poured into the reservoir.

A few sheep were seen grazing upon small spots; but the greatest number come from Tartary, as well as the larger cattle: the chief food of the latter is corn straw cut small. Milk, cheese, and butter, are little known among the Chinese; and the common people rarely taste of animal food, unless of such as die by disease or accident, in which cases they are equally relished; and even the vermin picked off their filthy persons, fall a prey to their depraved appetites.

After their crops of corn are got in, which was the case at this time, and the stubble taken off the ground, it is ploughed with a single buffalo. Their plough was of simple construction; and in parts where the soil is very light, it was drawn by men and women. There is no coulter to the plough: the share which penetrates, being made to terminate in a curve, performs the office of a mould-board for turning back the earth. It is sometimes made of iron, but more frequently with a timber which, from its hardness, is called *iron-wood*.

Their rice and corn-fields are all on an even surface, not, as in Europe, divided into ridges and furrows, and sown neatly in drills, or dibbled. Much seed is wasted in sowing by hand or broad-cast; neither is the crop so abundant as when drilled. The rows for setting, or dibbling, are, by the society of agriculturalists, directed to be from north to south; for which reason the husbandman stands with his face towards the south, in directing the plough.

At a few miles distance from each other were mili-

tary posts, with soldiers stationed to protect the internal traffic of the provinces, as well as travellers from pirates and robbers. Chinese soldiers wear their swords on the left side, having the point before them, and they are drawn by turning their right hand behind them.

Though several of their villages were as large as some European cities, they are held in little estimation, unless encompassed by a wall; and these walls, which always surround towns, were generally higher than the tops of their houses. Every town is imagined to be under the protection of certain stars or constellations; of which last the Chinese numbered twenty-eight; they have stars, also, which answer to the twelve signs of the zodiac, called the twelve mansions of the sun.

In China, no legal tax has been imposed for the maintenance of priests in any religion; yet there is something contributed to defray the expences of sacrifices made at every new and full moon, in spring and autumn, and at the commencement of the new year. No such day as Sunday is known; nor is the week divided in that manner. The temples are open for the free ingress of devotees, some of whom have bequeathed benefactions for the support of priests.

During the reign of the last emperor, a land-tax was substituted for a poll-tax; and though most of the imports, and all kinds of luxuries are taxed, yet as the duty is added to the original price of the commodity, the consumer can seldom distinguish the one from the other. There is, likewise, a transit duty on goods passing from one province to another, which is a great source of revenue. And the public treasury is not a little enriched by presents from tributaries, and subjects of the empire, as well as by confiscations of affluent criminals. But the several species of grain, including wheat, upon which the poor principally subsist, are exempt from taxation.

Cooper sculp

A CHINESE MILITARY POST.

A small spot of ground is allotted to every cottage for raising esculent vegetables; and hogs and poultry, especially ducks, were seen about each dwelling: the latter are frequently hatched by artificial heat. In the villages women were seen at their doors spinning cotton with rocks and reels; and here, as well as at every town throughout the empire, were pawnbrokers, who are allowed, by law, an exorbitant interest on the money advanced upon pledges.

The embassy entered the province of Shan-tung on the 18th of October, which being the day of full moon, the whole night was occupied in the performance of religious rites. There was an incessant noise of guns firing, music playing, loos beating, fireworks launching, and matches burning, from the hour of midnight till the sun-rising.

The annual cotton-plant is much cultivated in this province, as well as in that of Kiang-nan; and so is indigo for dying: blue being the general colour for cottons worn by the common people. The quantity of cotton, however, produced in China, is insufficient for the internal consumption, cotton being universally worn by both sexes. Considerable quantities are therefore imported annually from Bombay, which is paid for at Canton in dollars; these, in the course of trade, are given for bills of exchange upon England; and the dollars recur again to the Chinese merchants in payment for silks, teas, and porcelain, imported from thence into Europe.

On the 22d of October, the yachts arrived at Lin-sin-choo, a city of the second order, near which is erected a magnificent pagoda, nine stories high, intended, it was conjectured, to commemorate either the commencement or completion of this grand canal; which extends from hence to Han-choo-foo, in an irregular course, five hundred miles, through heights, over valleys, and across lakes and rivers. These pagodas, called by the natives *ta*, are generally from a hundred and twenty to a hundred and sixty feet high;

the diameter of their bases being about a fourth or fifth of their altitude.

On the 25th of October the yachts reached the highest part of the canal, where the river Luen, the largest which feeds the canal, descends into it, with a most rapid current, in a line perpendicular to the course of the canal: the opposite western bank is therefore strengthened by a strong bulwark of stone, against which the waters of the Luen strike with such violence as to divide, and follow, a part of the northern, and a part of the southern course of the canal. Proceeding a little farther, they arrived near the place where the Leu-tze, the renowned fishing-bird of China is bred, and taught the art and practice of furnishing his owner with abundance of fish. It is a species of the pelican, or corvorant.

A prodigious number of rafts, and small boats, built expressly for this kind of fishery, are constantly employed upon a lake close to this canal. Ten or a dozen birds are put to each raft or boat, and on a signal being made by the owner, they dive into the water and bring up fish, sometimes of an enormous size, between their bills. They seemed so well trained as to require neither ring nor cord to be put round their throats, to prevent them from devouring or swallowing any part of their prey; they were content to wait for what their masters chose to give them. The boats built for this purpose were so light, that two men often carried one, with the birds, to the lake.

This part of the canal was strongly embanked on both sides; for the water was brought into a narrower channel, and raised several yards above its former bed; the lands below were overflowed several months in the year, and cultivated with that species of rice which requires to be immersed in water till it be nearly fit for the sickle. Two crops were raised annually, the one was ripe in May or June, the other in October or November.

The process of shelling or husking rice was performed by putting the grain into a strong earthen vessel, or large stone mortar fixed into the ground, and striking it with a conical pestle adapted to the end of a lever. This pestle is ofen wrought by a person treading upon the end of a lever. Another mode of effecting this is, by placing the grain between two flat stones, of a circular form, of which the uppermost is made to turn round; but at such a distance from the undermost, as not to crush the rice placed between them. It is also done, on a larger scale, by water-mills.

The Yellow River, which the yachts had now to cross, was so rapid in its current as to induce the Chinese to think it necessary to make sacrifices to the spirit of the river to insure a safe passage: the master of the yacht, attended by the crew, assembled upon the forecastle; and holding a cock in his hand, as a victim, wrung off his head, and threw it into the stream. He then consecrated the vessel by sprinkling its blood upon the deck, masts, anchors, and doors, of the cabins; upon each of which were stuck some of the cock's feathers. After this, bowls of meat were brought, and placed in a line across the deck; and before these, cups, containing oil, tea, salt, and ardent spirits. The captain now made three low, solemn bows, lifting up his hands, and uttered a few words as if addressed to the deity. During this time the *loo* was forcibly beaten; matches were lighted and held towards heaven; tinsel paper was kept burning, and abundance of crackers let off. Libations were made by him to the river, by throwing into it the cups of liquids; afterwards, that which held the salt. The ceremonial being finished, the people made a hearty repast of the bowls of meat: they then launched the yacht with confidence, into the stream; and having reached the opposite shore, the captain offered thanks to heaven with three inclinations of body.

During the embassy's progress towards the Yellow

River, letters frequently passed between the emperor and Sun-ta-zhin, and the latter often paid friendly visits to the embassador. Quotations from the imperial dispatches were cited at different times, by Sun-ta-zhin, containing not only an account of the letter of Sir Erasmus Gower having been forwarded to Chu-san, but also gracious expressions towards his excellency and suite; which he was informed was in consequence of Sun-ta-zhin's favourable reports of the embassy. He had declared to the emperor, that he was perfectly convinced the embassador had no other views than that of procuring for his country advantages in trade, which Europeans considered as an object of the utmost importance; and that he had discovered nothing in their manners or sentiments which could create the smallest alarm to the nation, with whom the English might be desirous of establishing a friendly or commercial intercourse.

As testimonies of the emperor's personal regard, his gracious messages were often accompanied with presents of dried meats from his table, preserved after the eastern manner. His imperial majesty, in a recent answer to Sun-ta-zhin's letters, assured him, that he entertained his-self an high esteem for the embassador and his nation, notwithstanding the various surmises which had been made concerning them; that he had resolved to protect their trade, about which his excellency had interested himself so warmly; that he had, indeed, refused to comply with certain requests, as, at his advanced period of life he could not reconcile himself to any innovation: that with regard to the business of Canton, it had been left to the discretion and management of the viceroy, who would not readily give orders to abolish practices which he his-self had sanctioned; but as a particular mark of his imperial majesty's attention to the desires of the English on this subject, he had recalled the former, and appointed a new viceroy, one who was related to him by blood, and endued with sentiments

of justice and benevolence towards strangers; and that he had received instructions to examine and revise the regulations of the port of Canton, and to put an effectual stop to the vexations and grievances of which the English complained. Sun-ta-zhin, in addition, said to the embassador, that it might be supposed, perhaps, out of delicacy to his excellency, he had put too favourable a construction on his imperial majesty's dispatches, but that he might rest assured they were the emperor's own words; and that as the newly-appointed viceroy was still at Han-choo-foo, he would introduce the embassador to him there, who would confirm the assurances he had just given.

Proceeding farther on, they perceived plantations of mulberry-trees, some of which bore white, others red or black fruit. The boughs being frequently lopped off, young scions shoot out abundantly, the leaves of which are tender and more nutritious for silkworms than those gathered from older branches. The aurelias of the silkworm, as well as the white earth grub, and the larva of the sphinx moth, are accounted, among the Chinese, a delicacy for the table. In this, however, they are not singular; for in the West Indies, a large caterpillar, which feeds upon a palm, is esteemed a delicious morsel.

Bridges of a reddish granite, and some of a coarse grey marble, were thrown over the canal, the arches of which were variously constructed: to pass under these bridges, one of which, situated in the suburbs of Sou-choo-foo, it was necessary to strike the yacht's mast, and to erect, in its stead, a pair of sheers, consisting of two poles, one from each side of the vessel, which uniting at the top formed two legs of an isosceles triangle. But the arches of some of the bridges were lofty enough to admit the vessels to pass under in full sail. The vast height of these arches, render steps necessary to them from the extremity of the bridge; of course they are not passable for wheel-carriages.

The city of Sou-choo-foo, in the vicinity of Nankin, termed the Paradise of China, is large and very populous; the houses are neat and well built, and the inhabitants respectable, dressed mostly in silk: the women were fairer than those in the north, many of whom wore a small cap of black satin, adorned with jewels, upon the forehead, brought down to a peak between the eye-brows, and they had ear-pendents of gold or crystal.

In the vicinity of this city is found that remarkable tree which produces tallow, the *croton sebiferum* of Linnæus: this tree grows to the height of a common cherry-tree, its beautiful white blossom is followed by its fruit, growing in bunches, which is contained in a hard, brownish husk, which, when ripe, separates in the middle like a chesnut. Each husk contains three small kernels, about the size of a hazel nut, and every kernel is covered with a hard, white, oleaginous substance, (in like manner as the pulp of a cherry round its stone) which has the properties of tallow, but in stripping it off it does not soil the hands. With this tallow the Chinese make candles; though, to harden them, they are generally dipped in the wax produced by the insect. From the shell and kernel is extracted a good deal of oil, so that the tree produces tallow for candles, and oil for lamps.

The yachts stopped at a village near the city of Han-choo-foo, to receive the new viceroy of Canton. He came in a barge to pay the first visit to Sun-ta-zhin, and to the embassador. He confirmed the assurances which had been given of the emperor's friendly disposition towards his excellency and the English, to which, in the most pleasing manner, he added his own good-will.

In addition to the honour conferred by the emperor on Chaung-ta-zhin, the viceroy, the inhabitants of the Che-kiang, the government of which he had just quitted, and where he had administered impartial justice, gave him the most flattering of titles, by call-

ing him the "second Confucius." He accompanied Sun-ta-zhin and the embassador into Han-choo-foo, at which place they arrived on the 9th of November, 1793.

## CHAP. XII.

*Han-choo-foo. Journey from thence to Chu-san; and also to Canton. Passage of the Lion and Hindostan from the former to the latter. Residence of the Embassy at Canton and Macao. Passage to St. Helena; Notices of that Island. Return home.*

The city of Han-choo-foo, nearly equal in population to Pekin, is the grand emporium for merchandise and all kinds of articles which pass between the northern and southern provinces. The highest houses have only two stories; the streets are narrow, but well paved; in the principal of which the shops are as splendid as any in London. The manufacture of silks and satins, for which there is a brisk demand, is done by women; and furs and English broad-cloths form no inconsiderable part of their trade. The ladies, in lieu of linen, wear next them a silk netting, over this a waistcoat and drawers of silk, lined, in cold weather, with firs; and a satin robe above all, neatly gathered round the waist, and retained by a sash.

Information was received here that Sir Erasmus Gower had sailed from Chu-san; but as he had stated in a former letter, that he should proceed to Canton to get a supply of medicines, which he could not obtain elsewhere, a dispatch was immediately sent to the company's commissioners at Canton to stop the Lion.

From this place the new viceroy permitted Captain Mackintosh and a part of the embassador's suite to go to Chu-san, where the Hindostan was taking in a cargo. Sun-ta-zhin, who took a friendly leave of the embassador, accompanied this party. They set out on the 13th, and arrived there on the 19th of November; at which place their conductor, after making presents to them on behalf of the emperor, shook the captain heartily by the hand, and bade him a cordial adieu.

The embassador and the viceroy set out the same day for Canton, the route to which was upon the river Chien-tang-chaung. Two bodies of Tartar troops, superbly dressed, were drawn out upon the beach, and saluted his excellency as he passed to his barge. An immense crowd of boats were assembled on the occasion, and among the experienced boatsmen was one who rowed, steered, held the sheet, and smoked at the same time.

Between Han-choo-foo and Yen-choo-foo were some rich and picturesque valleys, which presented to view the large leafed chesnut, and purple leafed tallow-trees; also the towering larch, and the glittering leaves of the thick, spreading camphor-tree; and nearer to the latter place, a great number of the thuya, or *arbor vitæ* tree, which grows to an amazing height.

During a short temporary obstruction to the progress of the boats, two young men overtook them, who were anxious to have a sight of the embassador. They were dignified with the same office from the king of the Lequese islands, and were going to pay tribute and do homage from their sovereign to the emperor. Their dress, besides silk turbans, consisted of a fine brown shawl, the manufacture of their country, lined with the furs of squirrels. They were of dark complexion, well bred, and communicative. No European vessel, it seems, had ever been at any of their

islands, (at the principal of which was a commodious harbour) though they are not prohibited, and would be well recei ed.

The tea-tree, seldom cultivated more northerly than thirty degrees, was discovered about this part thinly scattered; but it abounds in the province of Fochen. This plant, as well as its properties, is so well known, that we shall pass it over in silence, and speak of another, very much like, and often substituted for, it, the *camellia sesanqua.*

The petals of this plant, called by the Chinese chawhaw, or flower of tea, from their resemblance to each other; and likewise the flowers of the Arabian jessamine, are sometimes mixed among the teas, in order to increase their flavour. The camellia sesanqua, which growns upon the tops and sides of mountains, is assiduously cultivated. It bears a nut from which is expressed an edible oil, equal to the best imported from Florence.

Several excavations were perceived in the sides of the contiguous hills, whence had been obtained a species of fine granite, called *pe-tun-se*, used in manufacturing porcelain. This with *kao lin*, a kind of clay, *wha-she*, similar to the English soap-rock, *she-kan*, the gypsum, and, it is reported, the inconsumable *asbestos* fossile-stone, formed its principal materials. A village in the neighbourhood contained three thousand furnices for baking porcelain; but the manufacturing of it is, with them, rendered uncertain; inasmuch as, for want of such a thermometer as Wedgwood's to ascertain the degree of heat, the contents of whole furnaces have been baked into one solid useless mass.

The embassy had now reached Chan-san-chen, where the river was no longer navigable. During their route, as well as on their arrival here, there were several interchanges of visits between the viceroy and the embassador, while preparations were making for their journey by land. He had almost a

daily correspondence with the emperor, from whom his excellency continued to receive expressions of personal esteem. The oppressions to which foreigners, and particularly the English, were exposed at Canton, frequently arose in the course of conversation. The benevolence of the viceroy disposed him to listen to such complaints; and Chow-ta-zhin, a staunch friend to the embassy, whom he had honoured with his confidence, undertook to urge the business to him in private.

Every thing being ready, the embassy pursued their journey towards Canton. On their route they perceived stages upon the sloping sides of hills, in which were cultivated pulse, grain, yams, sweet potatoes, onions, carrots, turnips, and other culinary vegetables. Upon the top of the mountain was a reservoir to catch rain water, which was conveyed thence, by channels, to irrigate these cultivated terraces.

The collecting of compost for the land is, with them, an object of the greatest attention; in which business are employed old and young, incapable of any other kind of labour. They rummage every street, road, jakes-pots, river, and canal; and also pick up with their hands, in baskets, the ordure of animals, and offals of every kind which can answer the purpose of manure. Wherever this is deficient, they unite various kinds of earth together; if the earth be too compact or adhesive, they mix with it sand; if too loose, clay or loam; and they are attentive in adapting the nature of the plant to the soil; and often, to advantage, change the earth from one spot to another.

Besides the modes already pointed out for raising water from rivers for irrigating their lands, the Chinese make use of a chain-pump, the chambers of which, instead of being cylindridal, are universally square. The inside of a hollow wooden trunk is divided in the middle, by a board, into two compartments; a chain, made to turn over a small wheel or

roller at each extremity of the trunk, is fastened to flat and square pieces of wood, nicely fitted to the capacity of the cavity. These, called lifters, move with the chain round the rollers, and raise a volume of water proportionate to the dimensions of the hollow trunk. The power to work this machine may be applied different ways. When it is intended to raise a great quantity of water, sets of wooden arms in the form of the letter T, are affixed to the lengthened axis of the rollers, and smoothed for the foot to rest upon. The axis is made to turn upon two wood uprights, rendered steady by a piece of timber stretched across them. Men, by treading upon the projecting parts of the wooden arms, supporting themselves at the same time by a cross-beam, give a rotatory motion to the chain; and the lifters, being attached to it, raise up a constant and abundant stream of water.

In the course of this short journey by land, no single spot was seen uncultivated where the efforts of labour could avail. In places where the soil was poor, or steril, every mean was employed to render it fertile. The Chinese are as neat in husbandry as in horticulture, and extirpate every nascent weed, or noxious plant.

In the evening they arrived at a town, whence they were next day again to embark; and though inns are not wanting on the road, there was not one proper to receive the embassador and suite; and they were accordingly accommodated with the public hall, destined for the examination of young men previous to taking their degrees.

These examinations are always public; and the governor and magistrates who preside, and the numerous auditors who attend, are supposed able to suppress any inclination to partiality in the judges. Oral and written questions are put to the candidates, as in England; and the successful one, after being elected to the university, is in the road, and

may attain to the highest offices and dignities of the state. No person is precluded from arriving at this honour; it is open to all classes of men. The people, thus convinced that authority has been obtained through merit, are prompted to pay it respect and obedience, except in cases of notorious abuse, against which rank and learning do not always afford security. A system of government like this holds out many advantages to society; nor can it fail but when the temptation to do evil preponderates over the strength of principle, and the hazard of detection in sacrificing it. The poor and private individuals of China, who have no channel through which to impart the grievances they suffer from the conduct of their local rulers, may be said to be left almost at their mercy; and the same conclusion will apply to foreigners when left in the same predicament. It was under this idea that the embassador seized every opportunity of impressing on the mind of the viceroy, the expediency of his protecting the strangers at Canton from the extortions of the collectors of the customs, and other subordinate officers connected with the commerce of that port. The viceroy was cautious in promising, but sincerely inclined to do all the good in his power.

In the course of another visit, the viceroy said to the embassador, that he was convinced no pains would be spared by the persons he was about to govern, to impress him with ideas inimical to the British nation; but that he saw the necessity of a change of conduct, as well out of a principle of justice to the English, as for the honour of his own country. And though his influence was considerable, and his footing apparently firm, yet his new situation was not free from difficulties; that besides the officers at Canton interested in continuing those oppressions, and whose guilt would be implicated in a redress, there were other prejudiced enemies at court, who might equally consider reform as a censure upon them; that exclusive of all these, another important consideration had

occurred to him, which was, the peremptory manner in which Ho-choong-taung had refused the requisitions of the embassador; that if in a representation of these facts to the court of Great Britain an endeavour were made to excite resentment, any subsequent appearances of resentment against his country would involve him criminally in the eyes of his government, for favours that might be shewn by him to the English in the mean time; he was, therefore, anxious to be satisfied on that head.

It was not quite clear to the embassador, whether the apprehension originated with the viceroy, or from a higher source; but at any rate it appeared to indicate, that from a conviction of the English armies in India, and of their vast maritime strength, the British nation was suspected of being two powerful not to require some delicacy of conduct even from the haughty empire of China. His excellency owned that he was dubious of the disposition of the court or minister of Pekin towards his country; but from the explanations which Sun-ta-zhin, as well as he, the viceroy, had given of the genuine sentiments of his imperial majesty, he placed a firm reliance on the assurances solemnly made to him, that particular attention would be paid to the interests of the British subjects in China, and had already imparted this confidence to the English government in the letters he had sent from Han-choo-foo; which he did not doubt would confide in their fulfilment. The viceroy then enquired of the embassador, whether he could empower him to certify a continuance of this amicable disposition, by the king's writing, speedily, to his imperial majesty; and by sending again a minister to China, if the emperor were inclined to admit of such, not in the expensive manner of the present embassy, but merely as a token of the continued amity of his Britannic majesty.

His excellency, not expecting such a proposal, replied, that "the king would probably have no difficulty in writing to the emperor," to acknowledge

the receipt of the presents, and to express his thanks for the distinguished manner in which he had received the embassy; a circumstance unconnected with its objects, all of which he had hopes might be effected in time; but that the vast distance between the two empires, and the difficulty and precariousness of the navigation, made it impossible to determine the advent of a new embassy. The viceroy ended by saying, that he would instantly send a messenger to court with a relation of the conference, together with such intimations of his own as would, he hoped, be in all points perfectly satisfactory to the emperor.

The embassy embarked anew; and proceeding rather in a northerly course, passed by a vast extent of swampy land, in the midst of which was the largest collection of water in the country, called Poyang Lake. Into this lake many rivers flow, and out of it several canals have been formed, and inclosed within strong high banks for the security of vessels in stormy or deluging weather. The billows often rise as high as those at sea, which render its passage dangerous. Small sandy islands were descried in the lake, the solitary residence of fishermen. The province of Kiang-see, which lay by the river side, abounded with plantations of bamboo. The feet of the women here were not crippled, being left in their natural state.

The river became again shallow; and a second land tour was unavoidable. The travellers set out in the morning, and arrived the same day at Nan-shoo-foo, where small covered barges, on the river Pe-Kiang, were prepared to carry them to Canton. Some days before they got to that city, persons were heard to utter *broken* English as they passed, a proof of the influence of British commerce; and many boats were seen going down the river with merchandize for the English market.

This river likewise swarmed with rafts of timber, chiefly of the larch and camphor-trees, destined for

the middle and northern provinces. These rafts were supplied with masts and sails, by which, in fair winds, they could stem the current; otherwise they were trailed by persons who lived on board in cabins built expressly for them. They used frequently to fish, and large nets were hauled up from them.

The viceroy had judged it expedient to proceed to Canton before the party, to procure a suitable reception for the embassy. He sent from thence large elegant barges, in which the embassador made his entrance into Canton on the nineteenth of December, 1793. The splendid manner in which his excellency was received, added to the personal attentions of the viceroy, must have convinced the inhabitants that the English were no longer destitute of protection, nor unworthy of esteem.

Most of the embassy had the happiness of hearing from their friends at home; and official accounts were received, that the government of France had commenced hostilities against Great Britain. The embassador had, likewise, the satisfaction of learning, that the Lion, after which ship the company's commissioners had dispatched a messenger, had been overtaken, and was then at Bocca Tigris.

The Lion sailed from Chu-san on the eighteenth of October, after having been there about seven weeks; during which time her crew had entirely recovered from their complaints. She passed through the Chu-san islands and the straits of Formosa, and anchored near the Ladrone islands on the twenty-third of October.

As soon as the company's commissioners had supplied Sir Erasmus with the medicines and other articles he wanted, he again shaped his course for, and sailed through the straits of Formosa; but having, in a gale of wind, sprung her fore and main topmasts, the Lion returned to the Ladrones to refit.

About this place some piratical vessels were seen, whose crews were Chinese. They had lately seized several junks, and plundered the neighbouring islands.

Their practice is, after taking whatever is valuable, to set fire to the habitations; to sink the junks; to make slaves of the stout, robust men, and to put all the rest to death.

On the 21st of November the Lion fell in with a brig, which, on examination, proved to be the identical vessel to which the five seal-catchers belonged, whom the embassy, in the preceding month of February, had found and left upon Amsterdam island; and where it is probably they will now end their days, as Sir Erasmus Gower seized the brig as a lawful prize, she having been fitted out from the isle of France.

Before the damages were repaired which the Lion had sustained in the tempestuous weather, Sir Erasmus Gower fortunately received the dispatches which had been forwarded to him by the commissioners, and in consequence thereof he had returned to Bocca Tigris.

The Hindostan, Captain Mackintosh, also returned to Canton earlier than was expected. The Chu-san traders had not goods sufficient to load so large a ship, neither was it convenient for them to purchase the European commodities. Tea and silk were cheaper there than at any other place; but they wanted the amount in specie, and Captain Mackintosh was not provided for the exigence. He therefore set sail for Canton, at which port he was also to be exempted from the accustomed imposts.

The city of Canton, in which the embassy was now lodged, like any other large seaport, has a number of foreigners mixed with the natives. The factories, belonging to different European nations, each of which has its peculiar flag flying, are handsome buildings, arranged in a line along the river, without the city walls; and around the neighbourhood are warehouses for the reception of articles for sale, as well as for Chinese merchandise for exportation. Whatever purchases are made for the English East India company, is done by agents, whose liberal emoluments place them

above the temptation of fraudulent or dishonourable practices; and who are bred in the habits of method, punctuality, and probity, the characteristics of a good merchant.

From a recent regulation, three commissioners had constant residence at the English factory, exclusive of the former number of supercargoes and writers. They were delegated by the company to notify, in form, the appontment of an embassy from Great Britain, as well as to superintend and direct the company's affairs at Macao and Canton. These gentlemen having furnished the embassador with a particular statement of the oppressions, and personal indignities experienced by their agents, enabled him to add to the remonstrances before presented to the viceroy. In consequence of this, two edicts were immediately promulgated against the frauds practised on foreigners in their commercial transactions, as well as the insults offered to their persons; in virtue whereof offenders had already been punished.

Among the grievances stated by the commissioners, and which was included in the remonstrance of the embassador, was that of the natives being prohibited from instructing Europeans in the Chinese language. The viceroy was at a loss to judge on what principle such a prohibition could have taken place, which deprived foreigners of the means of transacting their own affairs, as well as that of acquiring a knowledge of, in order to conform themselves to, the laws and customs of the country. In this particular the viceroy assured his excellency that no farther obstruction should be given on the part of government.

Though a complete reform of abuses could not be suddenly expected, yet during the embassador's residence at Canton it was not likely the English could have much cause of complaint. His excellency's intimacy with the viceroy, the viceroy's friendly disposition, the facility of imparting any injuries committed, through the medium of a faithful

interpreter, were likely to insure justice and tranquillity to foreign traders, as long as he remained firm and inflexible to the inimical misrepresentations of the designing, interested hoppo and his associates.

Besides a frequent interchange of visits between the viceroy and the embassador, the same took place between the latter and the gentlemen of the factory; all which must tend to convince the Chinese that the agents for the East India Company in China were of a respectable class, and held such an occupation as did not render them unworthy of the society of persons of the highest rank and distinction. Even the pride and reservedness of exalted rank were not cherished by the viceroy. None of his predecessors, like him, ever permitted the native merchants to sit down in his presence; and he was the first who had condescended to sit at an English table with the gentlemen of the factory, at an entertainment prepared by them for his excellency.

Agriculture engages most the attention, and is the chief occupation of the Chinese. Nearly the whole surface of the empire is appropriated only for the production of food; nor are there any limits put to the populousness of the country, but such as arise from the necessity of subsistence. They have no meadow land, and but little pasture; nor are oats, beans, or turnips, sown in fields for the use of cattle. There are scarcely any parks or pleasure-grounds but those appertaining to the emperor. The roads, being narrow, occupy but little land; the chief intercourse is by canals. Commons, or waste grounds, are unknown in China; nor do they suffer their arable lands to lie fallow. The labour of man is principally applied to the raising of articles which administer to the comforts, but not to the luxuries of life. Even soldiers, when not on duty, are busied in husbandry. The quantity of subsistence is also augmented by their converting more species of animals as well as vegetables, to their ordinary food than is

usual in other countries; and the greatest economy is attended to in their preparation. By reflecting on these circumstances, the assertion that every square mile in China averages one third more inhabitants than in an equal space in any other country of Europe, cannot appear surprising.

By astronomical observations, and actual measurement, the seventeen provinces of China were found to contain upwards of eight hundred and thirty millions of square miles, nearly thirteen hundred thousand square miles. The population of the country within the walls, (for no correct account of that of China Tartary could be obtained) ascertained in the different divisions of districts, by tithing men appointed by the government, amounted to three hundred and thirty-three millions of souls. The revenue arising from the whole of the provinces was stated at thirty-six millions and a half of tahels or ounces of silver, and four millions five hundred and forty-eight thousand measures of rice and other grain.

The real disposition of the viceroy to cherish and protect the English was countenanced by recent dispatches from the Emperor, who therein expressed the welcome which would be given at his court to another embassy from the king of Great Britain, and his desire that notice might be given of the minister's arrival at Canton, that proper persons might be dispatched thither to conduct him to Pekin. And by an extract from another letter it was stated, that as his imperial majesty should resign the reigns of government in the fifty-seventh year of the current cycle, corresponding to the year 1796, he wished to see such minister at, or as soon as convenient after, that time. "Thus," says the learned secretary, (and surely no one can doubt the fact, notwithstanding the unfavourable appearances at Zhe-hol and Pekin) "the embassy, according to the expectations which led to the undertaking, but contrary to the prospects which clouded it sometimes in its progress, suc-

ceeded at length, not only in obtaining permission, but in receiving an invitation, for a similar intercourse with the court of China, whenever the government of Great Britain and the company shall deem expedient to renew it."

As the expences attending the embassy while in the city were defrayed by his imperial majesty, his excellency was induced to remove to, and wait for the Lion at Macao; where, being out of the Chinese territories, they should cease to be any longer at the charges of the emperor. The attention of the viceroy was uniform throughout; instanced by his paying the embassador the same distinguished honours at his departure from, as he had done on his entrance into, the city of Canton.

An affectionate leave was taken of Chow and Van-ta-zhin, faithful companions of the embassy, who, after a final separation, sent on board the Lion presents of refreshment, and other tokens of personal esteem. On the embassador's arrival at Macao, he was politely received and entertained by the governor.

This settlement, granted, under certain restrictions, to the Portuguese, is connected to the remainder of the island by a long neck of land, about a hundred yards across. Their whole extent of territory, bounded by a wall, is not more than eight miles in circuit. In this small spot, the Portuguese carried on, for a length of time, almost exclusively, a considerable traffic with the Chinese empire, and in other countries in Asia, particularly to Japan, Tun-quin, Cochin-China, and Siam. Luxury kept pace with the increase of wealth; the enterprising spirit of the whole nation declined; and those at Macao became enervated by the effects of a tropical climate. Their trade to Japan failed; their speculations to other parts were rendered precarious; and this once prosperous settlement is descended almost into a state of nihility.

The public administration of Macao is committed to the military governor, the bishop, the judge, and a few of the settlers. There are thirteen churches and chapels, and fifty priests, besides a French and Italian clergyman, to minister to the devotions of between four and five thousand of Portuguese laity. The garrison consists of about three hundred privates, blacks and mulattoes, with a very large proportion of officers.

Of the two pagan temples at Macao, belonging to the Chinese, one is curiously situated among a confused heap of immense masses of granite. This temple is comprised of three separate buildings one over the other; the only approach to which is by a winding flight of steps hewn out of the solid rock.

The Cave of Camoen, situated a little above the loftiest eminence in the town, was constructed, probably, in the same manner as the temple above described, by bringing together a vast number of rocks. This cave, from a tradition current in the settlement, belonged to Camoen, a Portuguese poet, who resided a considerable time at Macao; and in which cave, it is said, he wrote the celebrated poem of the Luciad.

His excellency and two of the suite were accommodated in a house, the garden of which inclosed this romantic cave. Soon after his arrival here he received letters from England, and also from Batavia. By the former he learned, that as no fleet had been dispatched from France to the East Indies, government had not thought it necessary to send out any ships of force to convoy the Chinese fleet home; but those from Batavia stated the arrival of three ships of war, from the isle of France, in the straits of Sunda; that they had already captured the Princess Royal Indiaman; and that a larger force was soon expected. This intelligence determined the embassador's return home, to protect property amounting to three millions sterling, belonging to the

company, which was embarked on board fifteen of their ships.

These ships being all ready near Macao, the embassador and suite embarked on board the Lion, leaving behind him in China, Mr. Henry Baring, appointed a supercargo at Canton, and the Chinese interpreter, who never quitted his excellency till the moment of his embarkation. After an affectionate parting from his fellow-travellers, he went to a convent to change his English for a Chinese dress, intending to devote himself hereafter to the service and instruction of his poor fellow-christians in the western provinces of China.

The Lion, with fifteen of the company's ships, one Spanish, and one Portuguese Indiaman, sailed from the island of Samcock, near Macao, on the 17th of March, 1794. In the straits of Banca they fell in with three armed ships from Bengal: and near the straits, a fleet of Malay pirates, consisting of a snow, and ten proas, mounting six and three-pounders, according to the size of each vessel. Though it appeared they were fitted out for hostile or predatory purposes, Sir Erasmus Gower had too important a charge to be diverted from it by any investigation of their designs. They were, therefore, permitted to proceed without molestation.

The fleet stopped to complete their wood and water on the Java side of the straits of Sunda; and when this was done, the Jackall tender was dispatched, with the armed Indiamen, to Calcutta; having on board some tea, tallow, and varnish plants destined for Bengal, under the direction of Doctor Dinwiddie.

The convoy put to sea again on the nineteenth of April, and experienced, after the first month, several gales of wind, particularly off the Cape of Good Hope, which dispersed the fleet. They all rejoined at St. Helena, which island the Lion made on the six-

teenth of June, 1794, where she found his Majesty's ships the Sampson, and Argo, from Europe.

The island of St. Helena, whose periphery is about twenty-eight miles, was discovered more than two centuries ago by the Portuguese. The English took it from them, and the Dutch from the English. The last recovered it again, by surprise, from the Dutch. It now belongs to the East India Company, who have spared no expence to render it a convenient and comfortable place of resort for ships in their homeward passage.

The long drought and scorching winds, which for three years had desolated the island of St. Jago, extended their baneful influence to St. Helena the same period; nor had the island at that time entirely recovered from the calamity. Upwards of three thousand horned cattle perished for want of water and subsistence.

The valleys, and some spots upon the higher lands, had, however, regained their pristine verdure; and the garden-grounds were in excellent condition; as was also a botanic garden, which contained trees and plants of different climates. An insect had destroyed most of the fruit-trees, except the apple, which ever since had been industriously cultivated. The plantain and banana throve well; and some good coffee had been produced; but cotton, indigo, and canes, by no means answered.

The land was principally cultivated by black slaves, brought into the island by the first European settlers. These men were treated harshly by their owners, till the East India Company interfered, and put them under the protection of the magistracy. Previous to this regulation, one tenth of their number died annually; they now increase; though any farther importation of them is prohibited. There are also some free blacks upon this island, who being likewise oppressed by slave owners, experienced the

same humane interposition of the company; and they now claim and enjoy the privileges of a jury in both civil and criminal causes.

Having taken what refreshments the island afforded, the three men of war, the Lion, Sampson, and Argo, the Indiamen before mentioned, together with three more from Bengal, two from Bombay, and a South-Sea whaler, sailed from St. Helena on the first of July; and steering a north-westerly course to the equator, they crossed it in twenty-four degrees of west longitude from Greenwich.

Nothing material occurred till the twenty-first of July, on which day a fleet of eleven sail was discovered in the north-east; five of them loomed large. These had formed a line of battle a-breast, and were bearing down towards the convoy. The private signal not being answered, (it had been changed since Sir Erasmus Gower's departure from England) the Lion, Sampson, and Argo, cleared for action, while the merchant ships were directed to remain to leeward. The weather coming on suddenly thick, with rain, the two fleets were concealed from each other for ten or fifteen minutes; after which, clearing up as hastily, the strangers proved to be a fleet of Indiamen from england, under convoy of the Assistance man of war of fifty guns, commanded by Nathan Brunton, esq.—The writer of this abridgement was then an officer on board her, and is still in his majesty's service; and he is happy to have it in his power to testify the *handsome manner* in which that brave and experienced commander bore down upon a supposed enemy, in force superior to his own, for the protection of his convoy. This ship, by a written order from Sir Erasmus Gower, returned with the fleet to England; and as she was at that time allowed to be the best manned ship in the British navy, and her crew in perfect health and in high spirits, the convoy, in case of meeting with an enemy, would have been ably supported by such *Assistance.*

For some weeks, little progress was made by the homeward-bound fleet, by reason of calms and variable winds. When off the western islands, the Spanish and Portuguese ships parted company, steering for their own coasts: while the English, continuing their course, found themselves off Scilly on the 4th of September. In steering up channel in the night of the 5th, the wind blowing very strong, they fell in with the grand fleet, under the command of Earl Howe, standing down channel; and being dark, and upon different tacks, several of the ships ran foul of each other, and received considerable damage. The Lion, however, anchored safely, the next day, in Portsmouth harbour, where the embassador disembarked, after an absence of nearly two years, in a voyage spent in the service of his country, and in pursuit of an object which we heartily wish may ultimately be obtained.

END OF THE TWENTIETH VOLUME.